

# **Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels**

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# Annual Long-Range Plan for Construction of Naval Vessels

## I. Reporting Requirement

This report is submitted as the annual long-range plan for construction of Naval Vessels.

## II. Submission of the Report

This report provides a Department of the Navy (DoN) 30-year shipbuilding plan for FY2022 to FY2051. The plan details the force structure and funding required to build a great power competition Navy. Unless otherwise noted, funding levels are in constant year (CY) FY2020 dollars.

## III. Analytic Context

As discussed in the 27 February 2020 Secretary of Defense letter to the Committees, the PB2021 shipbuilding plan was held pending completion of a Future Naval Force Study (FNFS) examining competitive advantage in great power military competition through 2045.

The objective of the FNFS was to provide comparative analytic assessments of naval force structure options designed to maximize maritime dominance in the era of great power competition, consistent with the National Defense Strategy (NDS) and upcoming Tri-Service Maritime Strategy. The focus of the FNFS study was to identify the benefits and associated risks of three alternate future fleet architectures (FFAs) in order to inform future naval force structure decisions and the 30-year shipbuilding plan. The results of this study are summarized in Appendix 1. This shipbuilding plan details high-level outcomes from the FNFS assessment, describing the evolution path to the objective battle force. Detailed results of the FNFS can be provided at a higher classification.

## IV. Fiscal Context

The results from the FNFS and this shipbuilding plan reaffirm the requirement for a larger, more resilient Navy. A series of in depth Combatant Commander, Defense-wide, and Service reviews and reforms in the past year identified savings that could instead be budgeted to procure additional ships and associated readiness while staying within the FY2022 FYDP topline. Beyond the FYDP, the DoN funding required to grow and sustain the objective battle force paces forecast long-term U.S. economic growth (2.1% inflation and 2.0% real growth). This level of projected funding will address both the force structure described in this plan and the manning, training, operations, modernization and infrastructure required to sustain a larger fleet.

## V. Plan Objectives – Priorities

This plan reflects the NDS and DPG directed prioritization featured in Navy budget submissions since 2019:

- Fully fund recapitalization of the SSBN fleet with *Columbia* class SSBN.
- Prioritize readiness recovery to deliver a combat-credible forward force in the near-term.
- Invest in increased lethality/modernization with the greatest potential to deliver non-linear warfighting advantages against China and Russia in mid-to-far-term.

- Grow capacity at a rate supported by the fiscal guidance discussed in Section IV and NDS prioritization, and our ability to sustain that capacity in the future, enabling the fleet to grow to 316 ships by FY2026.

## VI. Unmanned Systems

Unmanned systems continue to advance in capability and are anticipated to mature to become key enablers through all phases of warfare and in all warfare domains. Significant resources are added to accelerate fielding the full spectrum of unmanned capabilities, including man-machine teaming ahead of full autonomy. These systems are now included in wargames, exercises and limited real-world operations. They are funded in the Navy’s research and development investments and accounted for in detail in each warfare domain’s Capability Evolution Plan (CEP). Table 1 provides the proposed FY2022 funding for the Future Years Defense Program (FYDP) unmanned platforms.

The FNFS provided an objective range of unmanned platforms by 2045. As we learn from land based testing and as prototypes are matured, specific procurement profiles outside the FYDP will be refined.

**Table 1. FYDP funding for Unmanned Platforms**

Ship Type (TY\$M)	FY22		FY23		FY24		FY25		FY26		FYDP	
	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
LUSV <sup>1</sup>	232		445	1	837	3	854	4	868	4	3,236	12
MUSV <sup>2</sup>	26		47	1	44		45		46		208	1
XLUUV <sup>3</sup>					227	2	215	2	453	4	895	8
<b>Total New Construction<sup>6</sup></b>	<b>258</b>	<b>0</b>	<b>492</b>	<b>2</b>	<b>1,108</b>	<b>5</b>	<b>1,114</b>	<b>6</b>	<b>1,367</b>	<b>8</b>	<b>4,339</b>	<b>21</b>

Notes:

1. Funding is in RD TEN and SCN
2. Funding is in RD TEN
3. Funding is in OPN

## VII. Industrial Base

The industrial base continues to be the fundamental enabler for achieving and sustaining the Navy’s future fleet. Our shipbuilding and supporting vendor base constitute a national security imperative that must be steadily supported, and grown, to maintain a skilled workforce. Consistent commitment to the steady acquisition profiles underlying this report is required to ensure the industrial supplier base achieves the capability and capacity required to build and maintain the Navy’s future fleet.

Maintaining our undersea advantage is a priority for the Navy. We are in the process of assessing the industrial base capability to continue delivering three SSNs per year past FY26 during Columbia serial production. The post-FYDP SSN profile will continue to be reviewed and updated in subsequent plans as the industrial base assessments are refined with the goal of three SSNs per year, if affordable and supportable by the industrial base.

## VIII. Shipbuilding Plan

### Shipbuilding Plan (FY2022-FY2026)

Table 1 includes the proposed FY2022 funding for the Future Years Defense Program (FYDP) portion of the 30-yr shipbuilding plan.

**Table 2. FYDP funding for Ship Building and Conversion Navy (SCN)**

Ship Type	(TY\$M)	FY22		FY23		FY24		FY25		FY26		FYDP	
		\$	Qty	\$	Qty								
CVN <sup>1</sup>		2,398		1,949		1,722		2,944		2,987		11,999	
DDG 51 <sup>2</sup>		3,676	2	4,589	2	4,137	2	3,948	2	4,277	2	20,627	10
FFG 62 <sup>3</sup>		1,212	1	3,293	3	3,094	3	4,227	4	4,388	4	16,214	15
SSN 774		6,618	2	7,749	2	10,026	2	11,689	3	9,823	3	45,905	12
SSBN 826 <sup>4</sup>		4,726		5,198		5,406	1	6,789		8,209	1	30,328	2
LPD Flt II <sup>5</sup>		41		1,787	1			1,625	1			3,453	2
LHA(R) <sup>5</sup>		2,109	1	1,784								3,893	1
LAW		156	1	150	1	300	2	450	3	450	3	1,506	10
T-AO 205		809	1	1,347	2	1,283	2	1,308	2	1,335	2	6,082	9
NGLS				150	1	150	1	300	2	300	2	900	6
T-EPF		540	2	270	1	270	1	270	1	270	1	1,620	6
T-ATS 6		81	1	80	1							161	2
T-AGOS (X) <sup>6</sup>		437	1	410	1	418	1	398	1	407	1	2,070	5
AS (X) <sup>6</sup>						1,151	1			1,151	1	2,302	2
<b>Total New Construction<sup>7</sup></b>		<b>22,803</b>	<b>12</b>	<b>28,756</b>	<b>15</b>	<b>27,957</b>	<b>16</b>	<b>33,948</b>	<b>19</b>	<b>33,597</b>	<b>20</b>	<b>147,060</b>	<b>82</b>

Notes:

1. Funding reflects the two-CVN procurement for CVN 80 and CVN 81 with advance procurement funding for a CVN in FY2026.
2. Includes nonrecurring engineering funding in FY2026 for the future large surface combatant.
3. Estimated costs based on the competitive award of the detail design and construction contract in FY2020 and investments to stand up a “follow yard” to increase procurement quantity.
4. FY2022-23 includes incremental full funding for the lead ship and FY2024-25 represents incremental full funding for the 2<sup>nd</sup> ship and. Other funding shown is advance procurement (AP) the 2<sup>nd</sup> ship, economic order quantity funding for multiple ships, and AP leading to serial production of one ship per year starting in FY2026.
5. Incremental funding is provided for LHA 9 in FY2022-23 to accelerate procurement to FY2022. Funding is also aligned for LHA 9, LPD 31, LPD 32 and LPD 33 in FY2022-25.
6. New ships planned for future procurement or for replacement of legacy ships are annotated with (X) until their class has been named, such as AS(X) and T-AGOS(X).
7. Funding for sustainment (maintenance, personnel, operations, etc.) is in addition to funding for shipbuilding (SCN), and is phased with delivery of battle force ships within the FYDP.

Notable FYDP proposed procurement activity includes:

- Continues to meet full funding requirements for CVN 80/CVN 81 and advanced procurement for a CVN in FY2026. The department also recognizes the need for continued exploration of carrier evolution and expects to conduct an analysis of alternatives within the FYDP to inform potential requirements.

- Continues funds for the Block V multi-year procurement (MYP) FY2019 to FY2023 for 10 *Virginia* class submarines, 9 with Virginia Payload Modules (VPM) while adjusting funding for up to a 12 ship MYP for Block VI. As discussed in Section VII of this report, analysis is ongoing to reach the goal of more consistently procuring three SSNs per year. Additionally \$1.7B was added FY2022-24 for shipyard facilitation to enable increased production of SSNs to three per year.
- Continues support for the last year of the FY2018 to FY2022 MYP of DDG 51 Flight IIIs with two ships requested in FY2022 and continues the two ship per year cadence across the FYDP for a follow-on MYP.
- Makes investments in FY2022 in long lead time material and the stand up of a ‘follow yard’ in FY2023 to increase FFG 62 production to three ships in FY2023 and to four ships by FY2025.
- Continues funding for the lead *Columbia* class SSBN in FY2021, the second in FY2024, and the first serial production SSBN beginning in FY2026.
- Procures one T-AO 205 class fleet oiler in FY2022 before increasing production to two per year be able to take advantage of a potential future MYP of these ships.
- Removes the procurement a strategic sealift T-AKR in FY2023 and procures 16 used sealift vessels as discussed in Appendix 5 in the sealift recapitalization program, adds an additional procurement of T-ATS(X) by including the ninth hull in FY2023 to be able to support a larger fleet, and maintains the plan for procuring T-AGOS(X) starting in FY2022.
- Includes funding to procure two AS(X) ships in FY2024 and FY2026.
- Initiates the Light Amphibious Warship program in FY2022 and the Next Generation Logistic Ship program in FY2023 to support a more dispersed naval operating concept.

### Shipbuilding Plan (FY2022-FY2051)

Tables 2 and 5 depict the procurement, delivery and retirement plans in this shipbuilding plan. The retirement plan along with the delivery plan drive the battle force inventory shown in Table 5. The inventory table indicates the projected number of ships in service on the last day of each fiscal year:

**Table 3. Battle Force Procurement Plan**

Fiscal Year	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Aircraft Carrier							1			1					1				1				1							
Large Surface Combatant	2	2	2	2	2	1	1		1	2	1	1	1	1	2	3	3	3	2	3	2	2	2	2	2	2	2	2	2	2
Small Surface Combatant	1	3	3	4	4	3	2	2	2	2	3	2	3	2	3	1	3	2	3	3	3	2	3	2	3	2	3	2	3	2
Attack Submarines	2	2	2	3	3	2	2	3	2	2	2	3	2	3	3	3	3	3	3	3	2	3	3	2	3	3	2	3	3	2
Ballistic Missile Submarines			1		1	1	1	1	1	1	1	1	1	1																
Large Payload Submarine																					1			1				1		1
Amphibious Warfare Ships	2	2	2	4	3	2	2	3	2	2	3	3	3	4	4	1	2	1	1		1	4	2	2	3	3	2	2	3	3
Combat Logistics Force	1	3	3	4	4	2	3	3	3	3	3	3	4	2	2	4	1			1	2	3	3	4	4	4	4	2	3	2
Support Vessels	4	3	3	2	3	1	1						1		1													2	2	1
<b>Total New Construction Plan</b>	<b>12</b>	<b>15</b>	<b>16</b>	<b>19</b>	<b>20</b>	<b>12</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>12</b>	<b>14</b>	<b>13</b>	<b>15</b>	<b>13</b>	<b>16</b>	<b>12</b>	<b>12</b>	<b>9</b>	<b>10</b>	<b>10</b>	<b>11</b>	<b>14</b>	<b>14</b>	<b>13</b>	<b>15</b>	<b>14</b>	<b>15</b>	<b>13</b>	<b>16</b>	<b>13</b>

**Table 4. Battle Force Delivery Plan**

Fiscal Year	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	
Aircraft Carrier			1				1				1					1				1				1				1			
Large Surface Combatant	3	3	2	3	2	4	5	2	2	2		1		1	1	2	1	1	1	1	2	3	2	4	2	2	3	2	2	2	
Small Surface Combatant	4	3	2		1	2	2	3	3	3	4	4	2	3	4	2	3	2	3	1	3	2	3	3	3	3	2	3	2	3	2
Attack Submarines	2	2	3	1	1	4	2	2	2	3	3	2	2	4	2	2	3	1	4	3	3	3	3	3	3	2	3	3	2	3	
Ballistic Missile Submarines							1			1	1	1	1	1	1	1	1	1	1	1	1										
Large Payload Submarine																												1			
Amphibious Warfare Ships		1	1	2	3	3	4	3	3	2	2	3	2	4	3	3	4	1	2	1	1			4	3	2	2	4	2	2	
Combat Logistics Force	1	2	1	1	1	5	3	3	3	4	3	3	3	3	3	3	3	1	1	2	1			3	2	4	4	4	4	4	
Support Vessels	5	4	3	4	2	2	2	3	1	2										1	1										
<b>Total</b>	<b>15</b>	<b>15</b>	<b>13</b>	<b>11</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>16</b>	<b>14</b>	<b>17</b>	<b>14</b>	<b>14</b>	<b>10</b>	<b>16</b>	<b>14</b>	<b>14</b>	<b>15</b>	<b>10</b>	<b>12</b>	<b>10</b>	<b>11</b>	<b>9</b>	<b>8</b>	<b>18</b>	<b>13</b>	<b>12</b>	<b>15</b>	<b>17</b>	<b>13</b>	<b>13</b>	

**Table 5. Battle Force Retirement Plan**

Fiscal Year	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Aircraft Carrier				-1		-1					-1					-1			-1		-1				-1		-1			
Large Surface Combatant	-6	-2	-2	-1	-3	-2	-1	-3	-5	-3	-3	-4	-3	-2	-2	-4	-4	-4	-3	-5	-3	-4	-3	-2	-2	-3	-2	-2	-2	-2
Small Surface Combatant			-4			-4													-1	-3	-3	-5	-3	-3	-4	-4	-3	-2		
Attack Submarines	-2		-4	-2	-3	-1	-2		-3	-1	-1	-3	-1	-1		-1	-5	-1	-2	-3		-2	-1	-1	-1	-1	-1	-1	-2	-2
Cruise Missile Submarines				-2	-1	-1																								
Ballistic Missile Submarines						-1	-1		-1	-1	-1	-1	-1	-1	-1	-1	-1	-2	-1	-1										
Amphibious Warfare Ships	-1	-4	-3	-1	-1		-1	-1				-1				-1			-1					-2	-4	-4	-4	-3	-2	-2
Combat Logistics Force		-2		-1	-1	-2	-1	-1	-2	-1	-1		-1	-1	-1	-1	-1								-1	-5	-4	-5	-3	-4
Support Vessels	-1	-2	-1	-1	-1	-1	-2	-2	-1		-2	-2	-1	-2	-1	-1	-3	-2			-1	-1		-2	-1	-1	-1	-1		
<b>Total Naval Force Retirements</b>	<b>-10</b>	<b>-10</b>	<b>-14</b>	<b>-5</b>	<b>-9</b>	<b>-14</b>	<b>-9</b>	<b>-5</b>	<b>-11</b>	<b>-8</b>	<b>-7</b>	<b>-9</b>	<b>-10</b>	<b>-7</b>	<b>-6</b>	<b>-6</b>	<b>-10</b>	<b>-10</b>	<b>-12</b>	<b>-10</b>	<b>-11</b>	<b>-11</b>	<b>-8</b>	<b>-11</b>	<b>-14</b>	<b>-17</b>	<b>-17</b>	<b>-14</b>	<b>-9</b>	<b>-10</b>

**Table 6. Battle Force Inventory**

Fiscal Year	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Aircraft Carrier	11	11	12	11	11	10	11	11	11	11	11	11	11	11	11	11	11	11	10	11	10	10	10	11	10	10	9	10	10	10
Large Surface Combatant	91	92	92	95	96	97	100	101	100	97	94	92	88	86	85	87	86	83	80	78	75	75	73	74	74	74	74	74	74	74
Small Surface Combatant	34	37	35	35	36	34	36	39	42	45	49	53	55	58	62	64	67	69	71	69	69	66	66	66	65	63	63	63	66	68
Attack Submarines	52	54	53	52	50	53	53	55	54	56	58	57	58	61	63	64	62	62	64	64	67	68	70	72	74	75	77	79	79	80
SSGN/ Large Payload Submarine	4	4	4	4	2	1																						1	1	1
Ballistic Missile Submarines	14	14	14	14	14	13	13	13	12	13	13	13	13	13	13	13	13	12	12	12	12	12	12	12	12	12	12	12	12	12
Amphibious Warfare Ships	31	28	26	27	29	32	35	37	40	42	44	47	48	52	55	57	61	62	63	64	64	64	64	66	65	63	61	62	62	62
Combat Logistics Force	31	31	32	32	32	35	37	39	40	43	45	48	50	52	54	56	58	61	62	63	65	66	66	69	70	69	69	68	69	69
Support Vessels	37	39	41	45	46	47	48	49	48	49	49	47	45	44	42	41	40	38	36	37	36	35	35	33	32	31	30	29	29	29
<b>Total Naval Force Inventory</b>	<b>305</b>	<b>310</b>	<b>309</b>	<b>315</b>	<b>316</b>	<b>322</b>	<b>333</b>	<b>344</b>	<b>347</b>	<b>356</b>	<b>363</b>	<b>368</b>	<b>368</b>	<b>377</b>	<b>385</b>	<b>393</b>	<b>398</b>	<b>398</b>	<b>398</b>	<b>398</b>	<b>398</b>	<b>398</b>	<b>396</b>	<b>396</b>	<b>403</b>	<b>402</b>	<b>397</b>	<b>395</b>	<b>398</b>	<b>402</b>

The tables above reflect the proposed position for the Navy shipbuilding plan. Analysis continues to refine certain ship class requirements.

**IX. Building the Future Navy Fleet**

The funding profiles detailed in past shipbuilding plans highlighted the fiscal challenge associated with the combination of strategic recapitalization – procurement of the *Columbia* class SSBN – and the imperative to invest in readiness recovery, improved lethality, and a larger great power competition fleet. This shipbuilding plan reflects the necessary increased funding for both shipbuilding and ship sustainment funding. A combination of topline increases and major internal efficiency savings are used to procure, modernize, man, train, equip and sustain the fleet that the NDS and great power competition require.

## **X. Summary**

This 30-year shipbuilding plan reflects the *National Defense Strategy* priority to build a more lethal force. It outlines the funding required to build the great power competition Navy and sustain the associated industrial base. The funding reflected in Section IV (2.1% inflation and 2.0% real growth) addresses both the required force structure in this new era of competition and the readiness, modernization and infrastructure elements required to sustain that force.

## Appendix 1

### Future Fleet Architecture

The FNFS confirmed the imperative to grow in capacity and evolve the capabilities of the fleet, providing specific vectors by major force element. Figure A1-1 and Table A1-1 show the range of major force element inventories indicated by the FNFS.

**Figure A1-1. Naval Force Inventory Ranges**

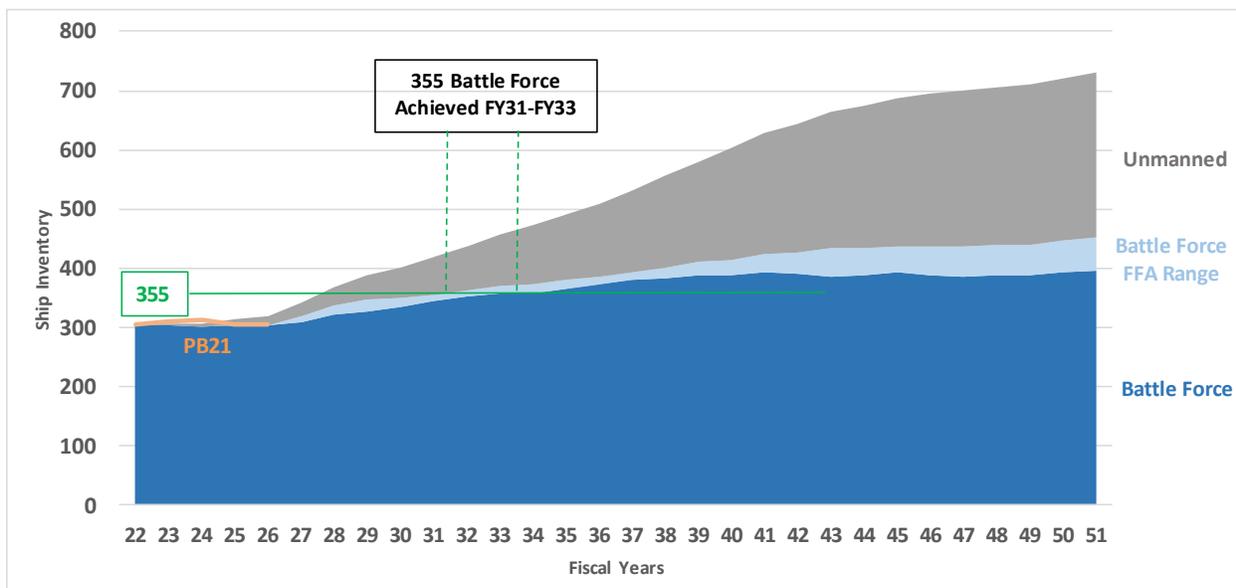


Table 1 includes a comparison of the Navy’s current inventory and the inventory in 2045 to the FNFS platform ranges. The specific inventory for different ship classes is consistent with DoN funding that paces forecast long-term U.S. economic growth as described on page 3 (2.1% inflation and 2.0% real growth). Given the FNFS platform ranges, the battle force reaches 355 between FY2031 and FY2033, with a better mix of ships to prevail in great power competition and conflict compared to the current inventory. The 30-year Shipbuilding Plan quantities for these platforms in 2045 are consistent with the FNFS ranges below.

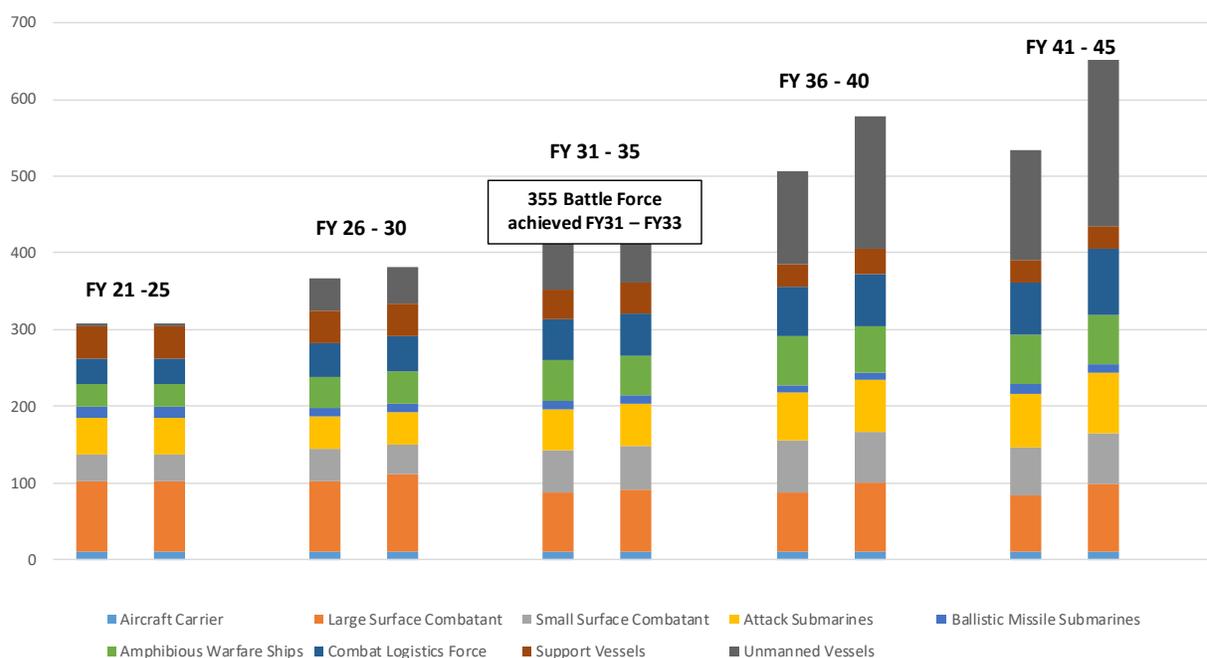
**Table A1-1. Force Structure Comparison**

Platforms	Current Inventory	Plan FY45 Inventory	FNFS FFA Ranges
Aircraft Carrier	11	11	8-11 <sup>1</sup>
CVL	0	0	0-6 <sup>2</sup>
LHA/LHD	10	9	9-10
Amphibious Warfare Ships (less LHA/LHD)	23	57	52-57 <sup>3</sup>
Large Surface Combatant	91	74	73-88
Small Surface Combatant	30	66	60-67
Attack Submarines / Large Payload Submarine	54	72	72-78
Ballistic Missile Submarines	14	12	12

Combat Logistics Force	29	69	69-87 <sup>4</sup>
Support Vessels	34	33	27-30
Unmanned Surface	0	119	119-166 <sup>5</sup>
Unmanned Subsurface	0	24	24-76 <sup>5</sup>
Battle Force	296	403	382-446
Battle Force + Unmanned Surface	-	522	501-612
Battle Force + Unmanned Surface + Unmanned Subsurface	-	546	525-688

1. Lower range may be enabled by acquisition of cost-effective CVL
2. Further study of cost-effective CVL capabilities and capacity required
3. Includes future Light Amphibious Warships (LAW). Amphibious ship force size/mix subject to on-going analysis
4. Includes Next Generation Logistic Ships (NGLS). Logistics force size/mix subject to on-going analysis
5. UxV require follow-on analysis of future objectives

**Figure A1-2. Range of Naval Force Inventory by Ship Category**



Key FNFS insights reflected in Table 1 and Figure 2 include:

### Subsurface

Maintaining our undersea advantage is a priority for the Navy. As the Navy's most survivable strike platforms, SSNs and SSBNs are key to both deterrence and winning great power conflict. To meet the demand for additional submarines, the industrial base capacity must be expanded. The plan outside the FYDP reflects an increase in SSNs that is fully realized with the conclusion of the COLUMBIA Class procurement and delivery. Analysis continues to evaluate the industrial base capability to more consistently deliver three SSNs per year past FY26 during

Columbia serial production. The post-FYDP SSN profile will continue to be reviewed in future shipbuilding plans and budgets as the industrial base assessments are refined as to the viability to reach and maintain three SSNs per year.

#### Carrier Aviation

- Nuclear powered carriers (CVNs) and carrier air wings (CVWs) provide sea control and power projection, offering a uniquely valuable combination of reach, volume of fires, sustainability and organic sensors.
- The FNFS identified that new capability concepts like the light aircraft carrier (CVL) need to be further refined to fully illuminate their potential to execute key mission elements in a more distributed manner, and to inform the best mix of a future CVN/CVL force.

#### Surface

- Large Surface Combatants, both Flight III destroyers (DDG Flt III) and the Future Large Surface Combatant, directly support Distributed Maritime Operations and are key to Sea Denial and Sea Control missions. Increased numbers of a small multi-mission combatant such as FFG(X) enable more efficient distribution of missions across the surface fleet, freeing up more capable assets (CGs and DDGs) for critical high-end missions. The FNFS indicated that growing the small surface combatant force enables reductions in the quantity of large surface combatants while yielding a more distributed and lethal force.

#### Amphibious Ships

- The USMC is reducing a number of legacy systems to reinvest in development of more NDS-relevant capabilities such as Marine Littoral Regiments (MLRs), as outlined in the Commandant's Planning Guidance and Force Design. The FNFS highlights the important contributions MLRs provide to Sea Denial and Sea Control missions. This approach requires a new mix of amphibious warships including the Light Amphibious Warship (LAW), which is critical to MLR mobility and sustainability. The overall number of amphibious warships grows to support the more distributed expeditionary force design, with an increased number of LAW complementing fewer legacy amphibious warships.

#### Combat Logistics Platforms (CLF)

- Logistics forces, to include traditional fleet oilers (T-AOs) and the newly planned smaller Next Generation Logistics Ship (NGLS) oilers are key to sustainability of the fleet and Fleet Marine Force during great power conflict. The FNFS highlights the value of increased numbers of T-AOs and NGLS platforms, improving sustainability at sea. The final CLF force size will continue to evolve pending additional study.

### Support Vessels

- Support vessels include enabler ships such as fleet tugs, salvage and rescue ships, submarine tenders, command ships, ocean surveillance ships and fast transports. Future requirements for fast transports decreased given complementary changes in the objective force, decreasing the overall support vessel quantity.

### Unmanned Platforms

- Large Unmanned Surface Vessels (LUSVs) add substantial, distributed, offensive and defensive fires capacity to the fleet at an affordable cost. LUSVs are initially envisioned to operate as adjunct fires magazines with larger manned multi-mission platforms to minimize technical risk and maximize survivability.
- Medium Unmanned Surface Vessels (MUSVs) show promise as low-cost forward sensors and C2 nodes.
- Extra Large Unmanned Undersea Vehicles (XLUUVs), a modular design UUV, will have the capability to deliver multiple payloads at extended ranges.

While not specifically modeled in the FNFS, strategic sealift is a key enabler of the National Defense Strategy and the power projection enabled by Army and Marine Corps combat equipment and supplies. With over 50% of the surge sealift vessels reaching the end of their service life in the next 10 years, the Navy has developed, with concurrence from OSD, TRANSCOM, Joint Staff, and MARAD, a strong plan to recapitalize reserve sealift ships with used commercial vessels, accelerating the path to recapitalize the reserve sealift fleet. Previous studies have shown a need for between 44 and 57 sealift ships, but additional analysis is needed to determine the current sealift requirement.

As identified in the FNFS report, additional study/testing is required to iteratively assess and fully develop the capabilities of several of these new platforms. Concurrently, the Department will conduct deliberative analysis to refine understanding of the capacity, capability, readiness and performance of the fleet against a future near-peer competitor capable of global operations. Participants in this work will include DoN subject matter experts, OSD(CAPE), the Joint Staff and the Intelligence community. Additionally, the DoN will continue to assess the industrial base pivot points required to support platform development or the industrial base growth/facilitation needed for future planned platforms, such as the next generation attack submarine.

## Appendix 2

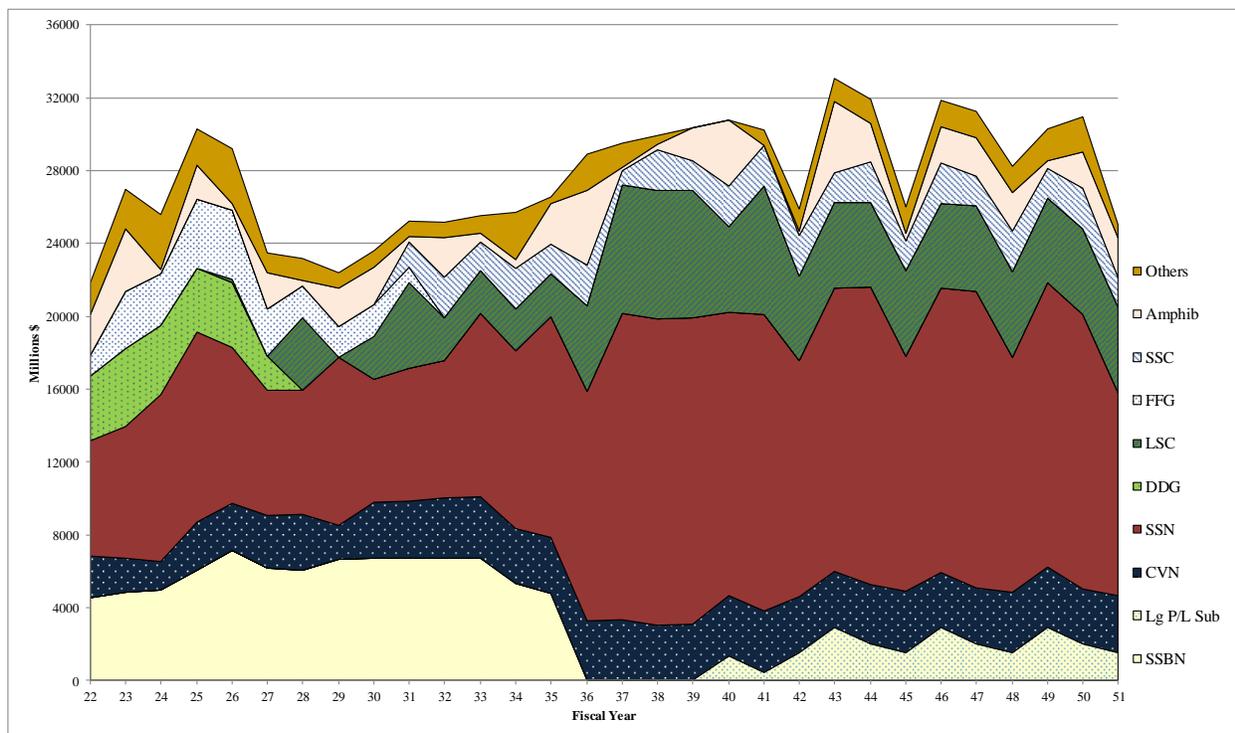
### Annual Funding for Ship Construction

The funding in this report is in FY20 constant dollars. Additional analysis is being done to update costs projected in this report to FY21 constant dollars for the shipbuilding plan to be submitted with the President's budget 2022. Figure A2-1 depicts the estimated funding required to achieve the battle force inventories proposed in table 5.

The cost to sustain a larger Navy is more than that required just for procurement, and is phased within the appropriate accounts to match ship deliveries (manning, support, training, infrastructure, etc.). Appendix 3 illustrates the projected cost of owning and operating (operations and sustainment) the naval fleet and projects the future costs of the battle force inventories proposed in Appendix 1, table A1-5. This appendix does not include the funding associated with Appendix 5, which discusses the growing logistics requirement and sealift recapitalization.

Next generation ships and submarines are in the early stages of requirements definition, and their uncertainty compounds into the future. Costs are estimated and their impact on overall force mix will be determined within the ongoing work of the future fleet architecture process. The baseline acquisition profiles provide a hedge against this uncertainty and reinforces long-term workforce stability for thoughtful, agile modernization and a clearer forecast of when to evolve to the next ship design.

**Figure A2-1. Annual Funding for Ship Construction**



## Appendix 3

### Annual Funding for Sustainment

NDAA FY2019 directed reporting cost considerations of owning and operating a larger force. The Navy has been growing from a low of 271 total ships in FY2015 and will continue to grow to 316 ships in FY2026. It is imperative that the DoN ensure the operations and sustainment accounts are funded properly to deliver capable capacity.

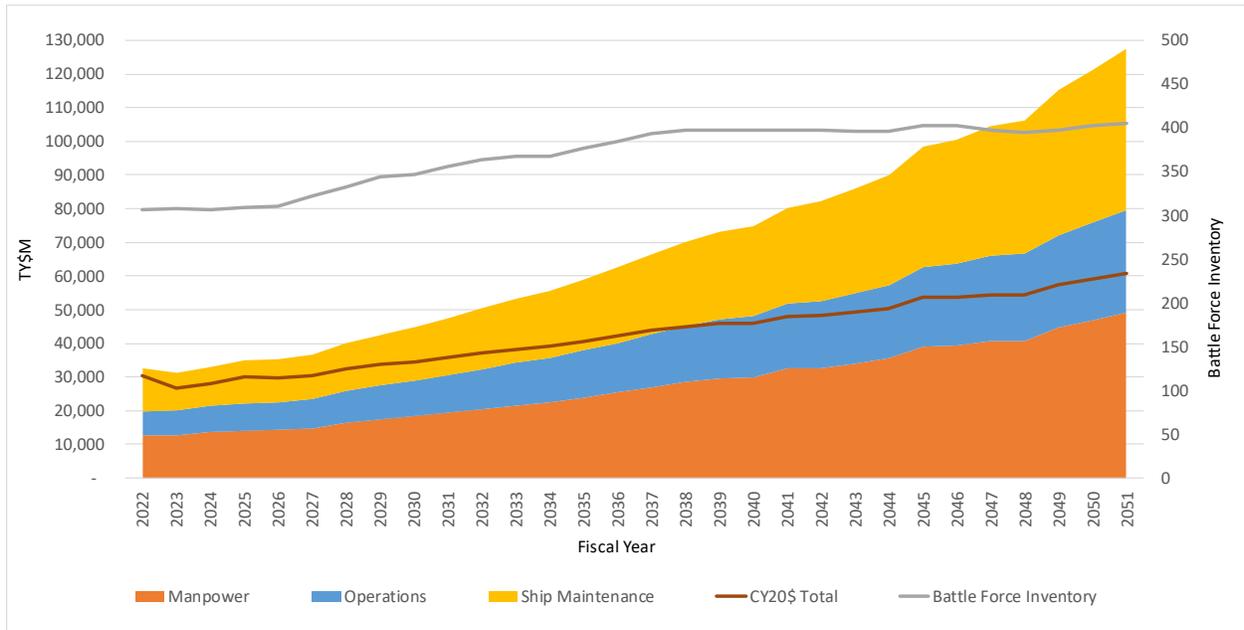
A consistent funding level scaled to support the size of the fleet is essential to maintain and repair fleet assets in support of strategic guidance. Just as significant is properly phased funding needed for operations and sustainment accounts, again consistent with the size of the battle force and growing over the life of a ship. This is the essence of the challenge to remain balanced across the elements of readiness–capability–capacity. Because of the detached timespan from procurement to delivery, often five years or more, and often beyond the FYDP, there is risk of underestimating the aggregate sustainment costs in the future that must be carefully considered in forecasting.

Multiple ship deliveries add hundreds of millions of dollars to a budget year to support the operations and sustainment of these ships. This funding is then required annually thereafter, compounded by additional deliveries in subsequent years and only offset by ship retirements, which lag deliveries when growing the force. A similar dynamic occurs when the life of a ship is extended, except that funding requirement for sustainment grows as the life of the ship increases. Sustainment resources programmed to shift from a retiring ship to a new ship must now stay in place for the duration of the extension. The sustainment cost continues to grow until equilibrium is reached at the desired higher inventory, when deliveries match retirements and all resourcing accounts reach steady-state at a higher, enduring sustainment cost.

The sustainment cost in Figure A3-1 represents the funding programmed in the FYDP with FY2026 funding levels inflated forward using Office of the Secretary of Defense indices applied to the fleet inventory shown in Section VIII. Included in this sustainment estimate are personnel, planned maintenance, and some operations, representing those costs tied directly to owning and operating a ship. Costs not captured in Figure A3-1 are those not easily associated with individual ships and require complex modeling for long-term forecasting (beyond 3 to 5 years), such as the balance of the operations accounts (market and schedule driven), modernization and ordnance (threat and technology driven), infrastructure and training (services spread across many ships), aviation detachments, networks and cyber support, plus others. In addition, Figure A3-1 does not reflect sustainment for unmanned vessels as operation and sustainment (O&S) models are not at a sufficient level of maturity and fidelity (i.e., representative prototype models do not exist). However, surrogate O&S estimates for unmanned platforms were used in FNFS to ensure unmanned platform O&S costs remained within the overall projected topline.

The Navy is now working towards developing the complex model(s) needed to capture these indirect costs. In the interim, as these models are developed, rough order of magnitude estimates help to identify future areas of concern, areas where the operation and support funding are not linked to grow or shrink at the same rate as the battle force. Similar to procurement, estimates become less accurate later in the plan. Recovering from the long-term investment imbalance is costly and difficult, particularly in the readiness accounts.

**Figure A3-1. Annual Funding for Sustainment (FY2022-2051)<sup>1</sup>**



<sup>1</sup> Shows funding estimated for personnel, maintenance and operations programmed in the FYDP for ships in the battle force. Beyond the FYDP, the funding is inflated at 4.6%, scaled by projected ship type (mix varies by year).

## Appendix 4

### Planned Decommissionings, Dismantlings, and Disposals

This addendum report is in compliance with the Senate Armed Services Committee request for additional information regarding decommissioning and disposal of naval vessels. Table A4-1 lists the battle force ships to be inactivated within the FYDP and their planned dispositions. The table also identifies the planned disposition for each ship. There are no potential gaps in warfighting capability that will result from the projected ships being removed from service. The Navy will continue to analyze service life extensions for the most capable warships each year through the FYDP.

**Table A4-1. Ships planned to be inactivated<sup>1</sup> during the FYDP**

<b>Inactivation Year (FY) - Total Ships</b>	<b>Ship Name / Designation / Hull Number</b>	<b>Disposition</b>
2022 10 Battle Force Ships	USS SAN JACINTO (CG 56)	OCIR
	USS MONTEREY (CG 61)	OCIR
	USS HUE CITY (CG 66)	OCIR
	USS ANZIO (CG 68)	OCIR
	USS VELLA GULF (CG 72)	OCIR
	USS PORT ROYAL (CG 73)	OCIR
	USS WHIDBEY ISLAND (LSD 41)	OCIR
	USS PROVIDENCE (SSN 719)	RECYCLE
	USS OKLAHOMA CITY (SSN 723)	RECYCLE
	USNS APACHE (T-ATF 172)	DISPOSAL
2023 10 Battle Force Ships	USS BUNKER HILL (CG 52)	OCIR
	USS MOBILE BAY (CG 53)	OCIR
	USS GERMANTOWN (LSD 42)	OCIR
	USS GUNSTON HALL (LSD 44)	OCIR
	USS ASHLAND (LSD 48)	OCIR
	USS CARTER HALL (LSD 50)	OCIR
	USNS JOHN LENTHALL (T-AO 189)	DISPOSAL
	USNS WALTER S DIEHL (T-AO 193)	DISPOSAL
	USNS GRASP (T-ARS 51)	DISPOSAL
	USNS CATAWBA (T-ATF 168)	DISPOSAL
2024 14 Battle Force Ships	USS ANTIETAM (CG 54)	OCIR
	USS SHILOH (CG 67)	OCIR
	USS RUSHMORE (LSD 47)	OCIR
	USS HARPERS FERRY (LSD 49)	OCIR
	USS PEARL HARBOR (LSD 52)	OCIR
	USS SENTRY (MCM 3)	DISPOSAL
	USS DEVASTATOR (MCM 6)	DISPOSAL
	USS GLADIATOR (MCM 11)	DISPOSAL
	USS DEXTROUS (MCM 13)	DISPOSAL
	USS CHICAGO (SSN 721)	RECYCLE

	USS KEY WEST (SSN 722)	RECYCLE
	USS SAN JUAN (SSN 751)	RECYCLE
	USS TOPEKA (SSN 754)	RECYCLE
	USNS SALVOR (T-ARS 52)	DISPOSAL
2025	USS NIMITZ (CVN 68)	RECYCLE
5 Battle Force Ships	USS OAK HILL (LSD 51)	OCIR
	USS HELENA (SSN 725)	RECYCLE
	USS PASADENA (SSN 752)	RECYCLE
	USNS JOSHUA HUMPHREYS (T-AO 188)	DISPOSAL
2026	USS CHANCELLORSVILLE (CG 62)	OCIR
9 Battle Force Ships	USS COMSTOCK (LSD 45)	OCIR
	USS OHIO (SSGN 726)	RECYCLE
	USS FLORIDA (SSGN 728)	RECYCLE
	USS NEWPORT NEWS (SSN 750)	RECYCLE
	USS SCRANTON (SSN 756)	RECYCLE
	USS ALEXANDRIA (SSN 757)	RECYCLE
	USNS VICTORIOUS (T-AGOS 19)	DISPOSAL
	USNS PECOS (T-AO 197)	DISPOSAL

Notes:

1. US Navy vessels are commissioned ships that are decommissioned and removed from active status. USNS vessels are non-commissioned vessels that are placed out of service.
2. Out of Commission in Reserve (OCIR) and Out of Service in Reserve (OSIR) ships will be retained on the Naval Vessel Register as reactivation candidates.

### **Ships planned for dismantling and SINKEX during the FYDP**

Prior to final disposition, ships reaching the end of their service lives are evaluated for additional use through intra-agency or inter-agency transfer, foreign military sales (FMS), fleet training, or weapons testing. Ships designated for FMS are retained in a hold status for no more than two years in accordance with Navy policy. The Navy intends to dismantle the ships listed in Table A4-2 within the FYDP. Specific dates will be determined when the ships are contracted for scrapping or recycling.

**Table A4-2. Ships Planned for Disposal by Dismantling**

Existing Inventory:	Additions within the FYDP:
Ex-PONCE (AFSB(I) 15)	USNS APACHE (T-ATF 172)
Ex-HAYES (AG 195)	USNS JOHN LENTHALL (T-AO 189)
Ex-NAVAJO (ATF 169)	USNS WALTER S DIEHL (T-AO 193)
Ex-MOHAWK (ATF 170)	USNS GRASP (T-ARS 51)
Ex-YORKTOWN (CG 48)	USNS CATAWBA (T-ATF 168)
Ex-KITTY HAWK (CV 63)	USS SENTRY (MCM 3)
Ex-JOHN F KENNEDY (CV 67)	USS DEVASTATOR (MCM 6)
Ex-BOONE (FFG 28)	USS GLADIATOR (MCM 11)
Ex-JOHN L HALL (FFG 32)	USS DEXTROUS (MCM 13)
Ex-UNDERWOOD (FFG 36)	USNS SALVOR (T-ARS 52)
Ex-NICHOLAS (FFG 47)	USNS JOSHUA HUMPHREYS (T-AO 188)

Ex-SAMUEL B ROBERTS (FFG 58)	USNS PECOS (T-AO 197)
Ex-CHARLESTON (LKA 113)	USNS VICTORIOUS (T-AGOS 19)
Ex-MOBILE (LKA 115)	
Ex-EL PASO (LKA 117)	
Ex-CLEVELAND (LPD 7)	
Ex-DUBUQUE (LPD 8)	
Ex-DENVER (LPD 9)	
Ex-JUNEAU (LPD 10)	
Ex-SHREVEPORT (LPD 12)	
Ex-NASHVILLE (LPD 13)	
Ex-BOULDER (LST 1190)	
Ex-CANON (PG 90)	
Ex-CHAMPION (MCM 4)	
Ex-SCOUT (MCM 8)	
Ex-ARDENT (MCM 12)	
Ex-SIOUX (T-ATF 171)	

Table A4-3 lists the ships that will be used for fleet training in support of Rim of the Pacific (RIMPAC) and Valiant Shield training exercises that will occur during the FYDP. The training will include using selected decommissioned ships as targets for live-fire weapons employment, referred to as a “sinking exercise” (SINKEX). The Chief of Naval Operations (CNO) guidelines authorize SINKEXs when: (1) the event is required to satisfy Title 10 requirements for ship survivability or weapons lethality evaluation; or (2) the event supports major joint or multi-national exercises or evaluation of significant new multi-unit tactics or tactics and weapons combinations.

**Table A4-3. Ships Planned for use in Future Fleet Training Exercises**

Ex-RODNEY M DAVIS (FFG 60)	Ex-INGRAHAM (FFG 61)
Ex-VANDEGRIFT (FFG 48)	

### Summary

Navy will inactivate 48 ships within the FYDP (Table A4-1): 21 will be designated OCIR / OSIR; 14 will be recycled; 13 will be slated for disposal. This will bring the total number of ships designated for dismantlement to 40 (Table A4-2, 27 previously inactivated ships and 13 ships added during the FYDP). Three ships are designated for fleet training support (SINKEX) (Table A4-3). This plan will be reassessed during the annual Ship Disposition Review expected to be conducted in January 2021.

## Appendix 5

### Auxiliary and Sealift Vessel Plan

Per the National Defense Strategy, auxiliary and sealift vessels provide support to the joint force, battle force, shore-based facilities, and broader national security missions.

#### Auxiliary Force Structure

Non-battle force auxiliary ships are operating platforms designed for unique United States military and federal government missions including oceanographic and hydrographic surveys, underwater surveillance, missile tracking and data collection, acoustic research and submarine support. Tables A5-1 and A5-2 depict current and required inventories.

**Table A5-1. Auxiliary vessels owned and operated by DoN**

Type	Current Inventory	Required Inventory
Oceanographic survey ships (AGS)	6	8
Navigation test support ship (AGS)	1	1
Submarine escort ships (AGSE)	4	4
Hospital ships (AH)	2	2
Cable repair ships (ARC)	1	2
High speed transport (HST)	1	-
<b>Total</b>	<b>15</b>	<b>17</b>

**Table A5-2. Auxiliary vessels procured by DoN and operated by other services/agencies**

Type	Current Inventory	Required Inventory
Missile range instrumentation ship (AGM)	2	2
Oceanographic research ships (AGOR)	6	6
<b>Total</b>	<b>8</b>	<b>8</b>

#### Organic Sealift Force Structure

Strategic sealift is a key enabler of the National Defense Strategy and U.S. power projection. Sealift ships transport approximately 90 percent of Army and Marine Corps combat unit equipment and supplies in support of major combat operations. Organic (U.S. government-owned) sealift capability combines afloat prepositioning vessels in a forward-deployed, full operating status and Surge Sealift vessels in reduced operating status lay-berthed in the continental United States. Figure A5-1 describes the organic strategic sealift fleet in detail.

Afloat prepositioning vessels operate under Military Sealift Command (MSC) to support Air Force, Army, and Navy/Marine Corps requirements. Of the 24 Afloat Prepositioning ships, this appendix reports on 16 as eight are not auxiliary vessels. Four special capability vessels are included in the battle force command/support ships category and the other four are leased container ships. Navy resources procurement of all afloat prepositioning ships as well as operations and sustainment of Navy Afloat Prepositioning. Army resources operations and sustainment for Army afloat prepositioning.

**Figure A5-1. Organic Sealift Fleet Summary**

AFLOAT PREPOSITIONING	SURGE SEALIFT
<i>Organic (government-owned), 15.3M ft<sup>2</sup></i>	
<p style="text-align: center;"><b><u>MSC Prepositioning</u></b></p> <ul style="list-style-type: none"> <li>• Total number of vessels: 24               <ul style="list-style-type: none"> <li>• RO/RO: 15</li> <li>• Special Capability: 9</li> </ul> </li> <li>• Average RO/RO age: 24 years</li> <li>• Capacity: 4.7M ft<sup>2</sup> RO/RO</li> <li>• Status: Forward deployed</li> <li>• Ownership: Government owned, commercially operated</li> </ul>	<p style="text-align: center;"><b><u>MSC Surge Sealift</u></b></p> <ul style="list-style-type: none"> <li>• Total Number of Vessels: 14 (all RO/ROs)</li> <li>• Average age: 30 years</li> <li>• Capacity: 4.5M ft<sup>2</sup> RO/RO</li> <li>• Status: Reduced operating</li> <li>• Ownership: Government owned commercially operated</li> </ul> <hr/> <p style="text-align: center;"><b><u>MARAD</u></b></p> <p style="text-align: center;"><b><u>Ready Reserve Force</u></b></p> <ul style="list-style-type: none"> <li>• Number of vessels: 46               <ul style="list-style-type: none"> <li>• RO/RO: 35</li> <li>• Special Capability: 11</li> </ul> </li> <li>• Average age: 44 years</li> <li>• Capacity: 6.1M ft<sup>2</sup> RO/RO</li> <li>• Ownership: Government owned, commercially operated</li> </ul>

Surge Sealift fleet subdivides into MSC’s Surge Sealift Force and the Ready Reserve Force under Department of Transportation’s Maritime Administration (MARAD). Navy resources procurement, operations and sustainment of the entire Surge Sealift fleet.

Strategic sealift vessels have an average age of approximately 40 years and are in need of recapitalization. In March 2018, the Secretary of the Navy delivered the *Sealift That the Nation Needs* (SNN) report to Congress, providing a recapitalization strategy for this critical capability. Table A5-3 depicts current and required inventories, excluding prepositioned battle force ships. The increase in required inventory is a result of a projected capacity differential between the current MARAD Roll-On/Roll-Off (RORO) vessels and future used RORO vessels.

**Table A5-3. Organic Sealift Current and Required Inventory**

Type	Current Inventory	Required Inventory
Crane ships (ACS)	6	4
Offshore petroleum distribution (AG/OPDS)	2	1
Cargo vehicle ships (AK/AKR)	30	23
Aviation logistics ships (AVB)	2	2
Cargo vehicle ships (RORO)	35	53
Heavy lift ships	2	0
<b>Total</b>	<b>77<sup>1</sup></b>	<b>83<sup>1</sup></b>

Notes:

1. Current and required inventories exclude eight afloat prepositioning ships that are included either in the Navy’s battle force ship count (4 ships) or leased container vessels (4 ships).

## Procurement Activity

The plan includes lead and second ship procurements of the AS(X) program to support submarine tending. AS(X) program resulted from the Common Hull Auxiliary Multi-Mission Platform (CHAMP) approach to acquire vessels in support of five different missions: sealift (AKR), aviation logistics support (AVB), hospital (AH), submarine tending (AS), and command and control (LCC). CHAMP evaluation illuminated key requirements and cost details that enabled Navy to initiate distinct, mission-based recapitalization programs aligned to vessel retirements. Recapitalization of AVB platforms will occur through procurement of used vessels rather than new construction. Navy continues to assess the most effective solutions across all of these mission areas, taking into consideration warfighting requirements, cost, commercial shipbuilding industry and private ship repair industry.

Table A5-4 includes funding for the FYDP portion of the auxiliary and sealift shipbuilding plan. This table includes procurements conducted in both Shipbuilding and Construction, Navy (SCN) and the National Defense Sealift Fund (NDSF).

**Table A5-4 FYDP funding – SCN and NDSF**

Ship Type	(\$M)	FY 2022		FY 2023		FY 2024		FY 2025		FY 2026		FYDP Total	
		\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
T-ARC(X)				503	1	431	1					934	2
RORO (Used Vessels)		369	5	251	2	448	5	366	4			1,434	16
<b>Total New Construction</b>		<b>369</b>	<b>5</b>	<b>754</b>	<b>3</b>	<b>879</b>	<b>6</b>	<b>366</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>2,368</b>	<b>18</b>

Notes:

1. Surge Sealift Used Vessels are commercial RORO vehicle cargo carriers funded in Operations and Maintenance, Navy (OM,N) with funding made available for transfer to the Ready Reserve Force, Maritime Administration by General Provision.
2. Surge Sealift Used Vessel Funding in FY21-FY26 includes modification funding for 18 used vessels.

Notable FYDP sealift and auxiliary procurement activity:

- Accelerates the Navy’s sealift recapitalization strategy
  - Removes first procurement of T-AKR(X) in FY2023 for FY2026 delivery
  - Adds four used surge sealift vessel procurement in FY2022, two used surge sealift vessels in FY2023, five used surge sealift vessels in FY2024 and four used sealift vessels in FY2025
- Adds first procurement of T-ARC(X) in FY2023 and a follow ship in FY2024 for FY2026 and FY2026 and FY2027 deliveries, respectively.

### Long Range Auxiliary and Sealift Plan

Table A5-5 depicts new construction shipbuilding procurements for auxiliary and sealift ships with a plan for 10 ships by FY2028. Table A5-6 depicts used vessel procurements for auxiliary and sealift ships. Tables A5-7 and A5-8 depict associated delivery plans for shipbuilding and used vessels, respectively; assuming construction and conversion efforts remain on plan. Table A5-9 shows the retirement plan that, along with the delivery plan, drive auxiliary and sealift force inventory in Table A5-10. The plan values providing warfighting

commanders ready and lethal platforms notwithstanding lower quantities than desired. Executing this plan, for both new construction and procuring used vessels, will be contingent on the availability of funding, which will further pressurize other procurement plans.

**Table A5-5 Auxiliary and Sealift Vessel Procurement Plan – New Construction Vessels**

Fiscal Year	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Oceanographic Survey Ships (AGS)							1	2	1		1	1									1								1	
Navigation Test Support Ship (AGS)							1																							
Submarine Escort Ships (AGSE)																														
Hospital ships (AH)											1	1																		
Cable repair ships (ARC)		1	1																											
High speed transport (HST)																														
Crane Ships (ACS)																														
Offshore Petroleum Distribution (AG)																														
Cargo Vehicle (AK/AKR)						1	1	1	1	1	1	1	1																	
Aviation Support Ships (AVB)																														
Cargo Vehicle (RORO)																														
Heavy Lift Ships																														
<b>Total Procurement - New</b>	0	1	1	0	1	3	3	2	1	3	3	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0

**Table A5-6 Auxiliary and Sealift Vessel Procurement Plan – Used Vessels**

Fiscal Year	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Oceanographic Survey Ships (AGS)																														
Navigation Test Support Ship (AGS)																														
Submarine Escort Ships (AGSE)																						2	2							
Hospital ships (AH)																														
Cable repair ships (ARC)																														
High speed transport (HST)																														
Crane Ships (ACS)						1	1	1				1																		
Offshore Petroleum Distribution (AG)																					1									
Cargo Vehicle (AK/AKR)																														
Aviation Support Ships (AVB)							1	1																						
Cargo Vehicle (RORO)	5	2	5	4	5	5	5	3	2	2	2	2	2	2	2	3	1	2	1											
Heavy Lift Ships																														
<b>Total Procurement - Used</b>	5	2	5	4	5	6	7	5	2	2	2	3	2	2	2	3	1	2	1	0	1	2	2	0	0	0	0	0	0	0

Notes:

1. Recapitalization of MARAD’s SS PETERSBURG will occur through RD TEN procurement of sea-based petroleum distribution system test articles.

**Table A5-7 Auxiliary and Sealift Vessel Delivery Plan – New Construction Vessels**

Fiscal Year	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Oceanographic Survey Ships (AGS)										1	2	1		1	1										1					
Navigation Test Support Ship (AGS)										1																				
Submarine Escort Ships (AGSE)																														
Hospital ships (AH)														1	1															
Cable repair ships (ARC)					1	1																								
High speed transport (HST)																														
Crane Ships (ACS)																														
Offshore Petroleum Distribution (AG)																														
Cargo Vehicle (AK/AKR)								1	1	1	1	1	1	1	1															
Aviation Support Ships (AVB)																														
Cargo Vehicle (RORO)																														
Heavy Lift Ships																														
<b>Total Delivery - New</b>	0	0	0	0	1	1	0	1	1	3	3	2	1	3	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	

**Table A5-8 Auxiliary and Sealift Vessel Delivery Plan – Used Vessels**

Fiscal Year	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Oceanographic Survey Ships (AGS)																														
Navigation Test Support Ship (AGS)																														
Submarine Escort Ships (AGSE)																								2	2					
Hospital ships (AH)																														
Cable repair ships (ARC)																														
High speed transport (HST)																														
Crane Ships (ACS)								1	1	1				1																
Offshore Petroleum Distribution (AG)																								1						
Cargo Vehicle (AK/AKR)																														
Aviation Support Ships (AVB)									1	1																				
Cargo Vehicle (RORO)	4	3	2	5	4	5	5	5	5	3	2	2	2	2	2	2	2	3	1	2	1	0	0	0	0	0				
Heavy Lift Ships																														
<b>Total Delivery - Used</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

**Table A5-9 Auxiliary Vessel and Sealift Retirement Plan**

Fiscal Year	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Oceanographic Survey Ships (AGS)								-1		-1		-1		-1	-1											-1				
Navigation Test Support Ship (AGS)										-1																				
Submarine Escort Ships (AGSE)																								-2	-2					
Hospital ships (AH)															-1	-1														
Cable repair ships (ARC)						-1																								
High speed transport (HST)							-1																							
Crane Ships (ACS)			-2				-1	-1	-1			-1																		
Offshore Petroleum Distribution (AG)	-1																						-1							
Cargo Vehicle (AK/AKR)	-1	-1	-5							-2	-2	-1	-1	-5														-2	-4	
Aviation Support Ships (AVB)								-1	-1																					
Cargo Vehicle (RORO)						-4	-8	-6	-4		-1	-1	-1	-3	-1	-3	-1	-2												
Heavy Lift Ships	-2																													
<b>Total Retirements</b>	<b>-4</b>	<b>-3</b>	<b>-5</b>	<b>0</b>	<b>0</b>	<b>-6</b>	<b>-10</b>	<b>-9</b>	<b>-5</b>	<b>-4</b>	<b>-3</b>	<b>-4</b>	<b>-2</b>	<b>-10</b>	<b>-3</b>	<b>-3</b>	<b>-1</b>	<b>-2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-1</b>	<b>-2</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>0</b>	<b>-2</b>	<b>-4</b>	<b>0</b>

**Table A5-10 Auxiliary and Sealift Vessel Inventory**

Fiscal Year	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Oceanographic Survey Ships (AGS)	6	6	7	7	7	7	7	7	6	6	6	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Navigation Test Support Ship (AGS)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Submarine Escort Ships (AGSE)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Hospital ships (AH)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Cable repair ships (ARC)	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
High speed transport (HST)	1	1	1	1	1	1																								
Crane Ships (ACS)	6	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Offshore Petroleum Distribution (AG)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cargo Vehicle (AK/AKR)	29	28	23	23	23	23	23	24	25	24	24	25	26	22	23	23	23	23	23	23	23	23	23	23	23	23	23	22	18	18
Aviation Support Ships (AVB)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Cargo Vehicle (RORO)	39	42	44	49	53	54	51	50	49	51	52	53	54	53	54	56	59	60	59	60	59	57	57	57	57	57	57	57	57	57
Heavy Lift Ships	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Auxiliary and Sealift Inventory</b>	<b>92</b>	<b>92</b>	<b>90</b>	<b>95</b>	<b>99</b>	<b>101</b>	<b>97</b>	<b>97</b>	<b>96</b>	<b>97</b>	<b>98</b>	<b>102</b>	<b>104</b>	<b>99</b>	<b>101</b>	<b>103</b>	<b>106</b>	<b>107</b>	<b>106</b>	<b>107</b>	<b>106</b>	<b>104</b>	<b>104</b>	<b>104</b>	<b>104</b>	<b>104</b>	<b>104</b>	<b>103</b>	<b>99</b>	<b>99</b>