Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for FY2015

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Long-Range Plan for Construction of Naval Vessels for FY2015

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Annual Long-Range Plan for Construction of Naval Vessels for FY2015

I. Reporting Requirement

This report is submitted in accordance with section 231 of Title 10, United States Code which requires that the Secretary of Defense (SECDEF) submit to the congressional defense committees, coincident with the defense budget materials for a fiscal year, an annual, long-range plan for construction of combatant and support vessels for the Navy. This report must include the estimated total cost of construction for each vessel used to determine estimated levels of annual funding in the shipbuilding plan.[1] The content of this report meets all of the requirements articulated in section 231, Title 10 United States Code.

II. Submission of the Report

This report describes the Department of the Navy (DON) five-year shipbuilding plan for FY2015-FY2019. The FY2015 President's Budget (PB2015) provides a sufficient level of funding to procure the naval vessels specified in this plan in FY2015 and over the FY2015-FY2019 Future Years Defense Plan. The PB15 FYDP is the foundation from which the Shipbuilding Plan, articulated in this report, was developed. As directed in the NDAA, the shipbuilding plan details the required number of ships by type, as determined in the last Navy Force Structure Assessment (FSA), completed in FY2012. This FSA identified those forces that most efficiently execute the missions and priorities of the Department of Defense (DoD) Defense Strategic Guidance (DSG) *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense* and accounts for the modifications to those missions as articulated in the Quadrennial Defense Review (QDR). The shipbuilding plan then describes a long-range projection of new ship construction needed to field a fleet that meets the FSA's objectives and the fiscal resources necessary to implement the associated construction plan, which includes a discussion of the procurement strategies on which investment levels of annual funding are based

III. Force Structure Assessment and Related Battle Force Count

This report describes the construction of "battle force" ships as defined in SECNAVINST 5030.8B, General Guidance for the Classification of Naval Vessels and Battle Force Ship Counting Procedures. As previously discussed with Congress, DON revised the guidelines for counting battle force ships to capture the forces associated with OPLANS and those requested by the Geographic Combatant Commanders, which are routinely resourced through the Global Force Management Allocation Plan (GFMAP) process. Unless otherwise stated in this report, all battle force inventories will follow this revised counting methodology. The battle force inventory under the prior counting rules is included at Appendix 5 to reflect the differences between these two counting schemes.

Today's battle force count is 289.[2] The 2012 FSA, a comprehensive and rigorous analytical

[1] Due to the business-sensitive nature of this information, it is provided in a limited distribution Appendix 3.

[2] As of April 10, 2014

assessment, determined a post-2020 requirement for 306 ships in the battle force and emphasized forward presence while re-examining resourcing requirements for operational plans and defense planning scenarios. Of note, the revised counting rules reflect the addition of ships employed today to meet small surface combatant (SSC) requirements for which the Navy currently has insufficient SSC forces. While the bulk of the vessels we have added are forward deployed today, most will retire or will no longer be forward deployed by 2020 and therefore will have almost no impact on the enduring FSA ship count.

This battle force achieves the following: (1) aligns global presence requirements with national priorities; (2) increases forward basing/stationing of ships and systems; (3) improves payload capacity for SSNs replacing SSGNs and; (4) increases use of rotational civilian and military crews, providing more forward presence per ship.

The FSA objective for 306 ships includes:

- 12 Fleet ballistic missile submarines;[3]
- 11 nuclear-powered aircraft carriers;
- 48 nuclear-powered attack submarines;
- 0-4 nuclear-powered cruise missile submarines;[4]
- 88 large, multi-mission, surface combatants;
- 52 small, multi-role, surface combatants;
- 33 amphibious landing ships;[5]
- 29 combat logistics force ships; and
- 33 support vessels.

This report outlines the Long-Range Naval Vessel Construction Plan necessary to build and maintain the battle force inventory outlined above and describes the resources necessary to implement this plan. As long as the Navy is able to procure the ships reflected in the plan, we will have a battle force that meets QDR requirements, and that will adequately sustain the national shipbuilding and naval combat systems design industrial bases.

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[3] DoD plans to replace the 14 OHIO Class SSBNs with 12 new SSBN(X)s starting in the late 2020s.

[4] The 4 SSGNs now in service will retire in the mid-2020s. The DON is exploring the possibility of inserting VIRGINIA Payload Modules, a hull section with four large diameter payload tubes, in Block V VIRGINIA Class attack submarines to begin to offset the future loss of SSGN strike capability.

[5] The strategic review focused primarily on sustaining Amphibious Ready Groups/Marine Expeditionary Units forward in the Western Pacific and Persian Gulf in a crisis response role. It took risk in generating the 30 operationally available ships necessary to conduct a 2.0 Marine Expeditionary Brigade (MEB) assault echelon forcible entry operation. To lower risk, this plan strives to maintain an active inventory of 33 active amphibious ships.

IV. Planning Assumptions and Futures

This shipbuilding plan is based on two key assumptions:

- *Battle force inventory of the "2012 Navy FSA" will remain the objective of this plan.*
- *All battle force ship operations and sustainment costs will be resourced as necessary to ensure these ships are able to serve to the end of their respective service lives.*

This report will provide the implications and resources required to finance the shipbuilding requirements of the DON.

- *This plan is an efficient and robust industrial base investment plan aimed at reaching the FSA-directed force of 306 ships in a cost effective manner. Beginning in FY2020 and running through the end of the 30-year plan horizon, the plan requires an average annual investment of about $17.2B (FY14$) to finance, which is ~$4B/year more than our historical average annual investment of ~$13B/yr. In particular, for the period while we are procuring the OHIO Replacement (OR) SSBN (essentially FY25-FY34), the Navy will have to provide an average of $19.7B annually with the peak year in FY32 at slightly more than $24B. Even if the OHIO Replacement Program (ORP) is removed from the resource total, the average funding required beginning in FY2020 is ~$14-15B/yr to build the FSA force.*

V. Long-Range Naval Vessel Construction Plan

Table 1 depicts a Long-Range Vessel Construction Plan designed to pursue the inventory objectives of the FSA. This battle force, with its requisite payloads and associated systems, is adequate to meet the objectives of the FSA force (content and quantity) in the FY2024-2028 time frame. While the mix of ships varies around the FSA objective over the 30 year period, the battle force meets the missions required throughout the planning period. The construction plan sustains the national shipbuilding design and production industrial bases and fulfills Chapter 9, Section 231, of Title 10 United States Code requirement as modified by Section 1021 of the National Defense Authorization Act (NDAA) of FY2014.

Table 1. Long-Range Naval Battle Force Construction Plan

Fiscal Year	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Aircraft Carrier				1					1					1					1					1					1	
Large Surface Combatant	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	2	2
Small Surface Combatant	3	3	3	3	2	3	3	3	3	3	3					1		1		1	1		4	4	4	4	4	4	4	2
Attack Submarines	2	2	2	2	2	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Ballistic Missile Submarines							1			1		1	1	1	1	1	1	1	1	1	1									
Amphibious Warfare Ships			1			1		1		2		1		2	1	1	1	2	1	1		1				2		1		2
Combat Logistics Force		1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1										1	
Support Vessels			3	1	1	2		2	3	2	1			1	1	2	2	3	2	2										
Total New Construction Plan	7	8	11	10	8	11	8	11	11	13	8	7	5	10	7	10	8	12	9	9	5	5	7	10	8	11	8	10	9	8

This plan reflects constraints on the flexibility of naval construction, which are significant because of the long-lead time, specialized skills, and extent of integration needed to build

military ships. The complex configuration and size of naval vessels result in design times that range from two to seven or more years, and construction schedules that can span up to nine years. Individual ships cost from hundreds of millions to several billions of dollars, making each one a significant fraction of the shipbuilding budget in any one year. Moreover, because of their technological complexity, physical size, propulsion plant type, and warfare systems, Navy ships can only be constructed at a limited number of U.S. shipyards. The timing of ship procurement is a critical matter to the health and sustainment of U.S. shipbuilding and combat system industries. The DON must procure the right mix of ships at an efficient production rate to maintain production lines, the skilled work force and numerous support vendors that build complex naval vessels and their systems.

The 30-year shipbuilding construction plan of Table 1 results in the annual naval battle force inventory shown in Table 2, which depicts the projected number of ships in service on the last day of each fiscal year.

Table 2. Baseline Naval Battle Force Inventory

Fiscal Year	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Aircraft Carrier	10	11	11	11	11	11	11	11	12	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	10	10	10	10	10
Large Surface Combatant	85	88	90	91	93	95	96	97	98	98	98	97	99	100	98	95	91	89	88	86	87	88	90	91	92	90	89	87	84	83
Small Surface Combatant	26	30	34	38	40	37	33	36	39	40	43	46	49	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Attack Submarines	54	53	50	52	51	49	49	48	49	48	47	45	44	41	41	41	43	43	45	46	48	49	51	50	51	51	51	52	52	52
Cruise Missile Submarines	4	4	4	4	4	4	4	4	4	4	4	2	1																	
Ballistic Missile Submarines	14	14	14	14	14	14	14	14	14	14	14	14	13	13	12	11	11	10	10	10	10	10	10	10	10	10	11	12	12	12
Amphibious Warfare Ships	30	31	32	33	33	33	33	33	33	34	34	36	35	36	35	35	34	34	35	34	32	32	33	33	33	32	33	32	31	31
Combat Logistics Force	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Support Vessels	32	30	32	32	34	36	35	35	36	36	37	37	37	37	37	37	36	37	37	37	37	35	34	35	34	34	34	34	34	34
Total Naval Force Inventory	284	290	296	304	309	308	304	307	314	315	317	317	318	319	315	311	307	305	307	305	306	306	310	311	312	308	309	308	304	303

While the force structure presented in Table 2 describes a battle force that meets the requirements of the National Security Strategy and the 2014 QDR; it requires funding at an unsustainable level, particularly between FY25 and FY34. As articulated in the previous section of this report, in FY2012 the Navy's FSA established a force level of 306 battle force ships. In completing this shipbuilding plan, the DON balanced the anticipated risk with the uncertainties of the future to achieve the best possible balance of missions, resources, and requirements. The average cost of this plan during the period in which the DON is procuring OR SSBN (~$19.7B/year FY2025-2034) cannot be accommodated by the Navy from existing resources – particularly if DoD is required to be funded at the BCA levels.

The DON is mitigating risk inherent in the shipbuilding plan by providing an agile, flexible, ready and technologically advanced force. Further, the DON will continue to ensure an appropriate balance of readiness, warfighting capability, and forward presence from the forces we have in our inventory. We are committed to sustaining the appropriate readiness in today's Navy while building a future fleet to meet the continuum of threats we will face through the bulk of this century and will do so to the extent our resources will permit.

VI. Planning and Resource Challenges

There are two significant challenges to resourcing the DON shipbuilding program. The first will be funding and delivering the OR SSBN. The battle force inventory shown in Table 2, represents the force that the FSA has determined is the minimum necessary to meet QDR requirements. The DON can only afford the SSBN procurement costs with significant increases in our top-line or by having the SSBN funded from sources that do not result in any reductions to the DON's current resourcing level.

Our second significant challenge will be the block obsolescence built into our shipbuilding program in the 1980s. Over the last two decades, the Navy has divested itself of those ships built prior to 1980, and most of our current fleet is comprised of ships built between 1980 and 1990. A great number of ship classes were built at a rate of three or four ships per year. Therefore, this fleet has a large number of ships that are about the same age and will retire as a group. These retiring ships will need to be recapitalized at rates that are unaffordable in today's environment. This phenomenon leads to a requirement to increase shipbuilding funding over historic levels. Only with additional funding in FY2020 and beyond, will we mitigate the impact of these retirements. In addition, innovative actions like those we are pursuing with the TICONDEROGA Class Cruisers will enable us to spread retirements across longer periods and mitigate the impact of block retirement.

To further minimize the impact of ship retirements, the DON plans to retain ships until at least their Expected Service Life (ESL). Ships will be upgraded with appropriate payloads and flexible combat systems to stay relevant. The service lives of specific ships will be extended, if technically feasible, and new ships will incorporate modularity and open-architecture mechanical, electrical and information systems to enable rapid and economical upgrades and adaptations. All of these measures will help maintain the size and effectiveness of the battle force inventory in the 2020s to early 2030s.

VII. Estimated Levels of Annual Funding Required for the Long-Range Shipbuilding Program

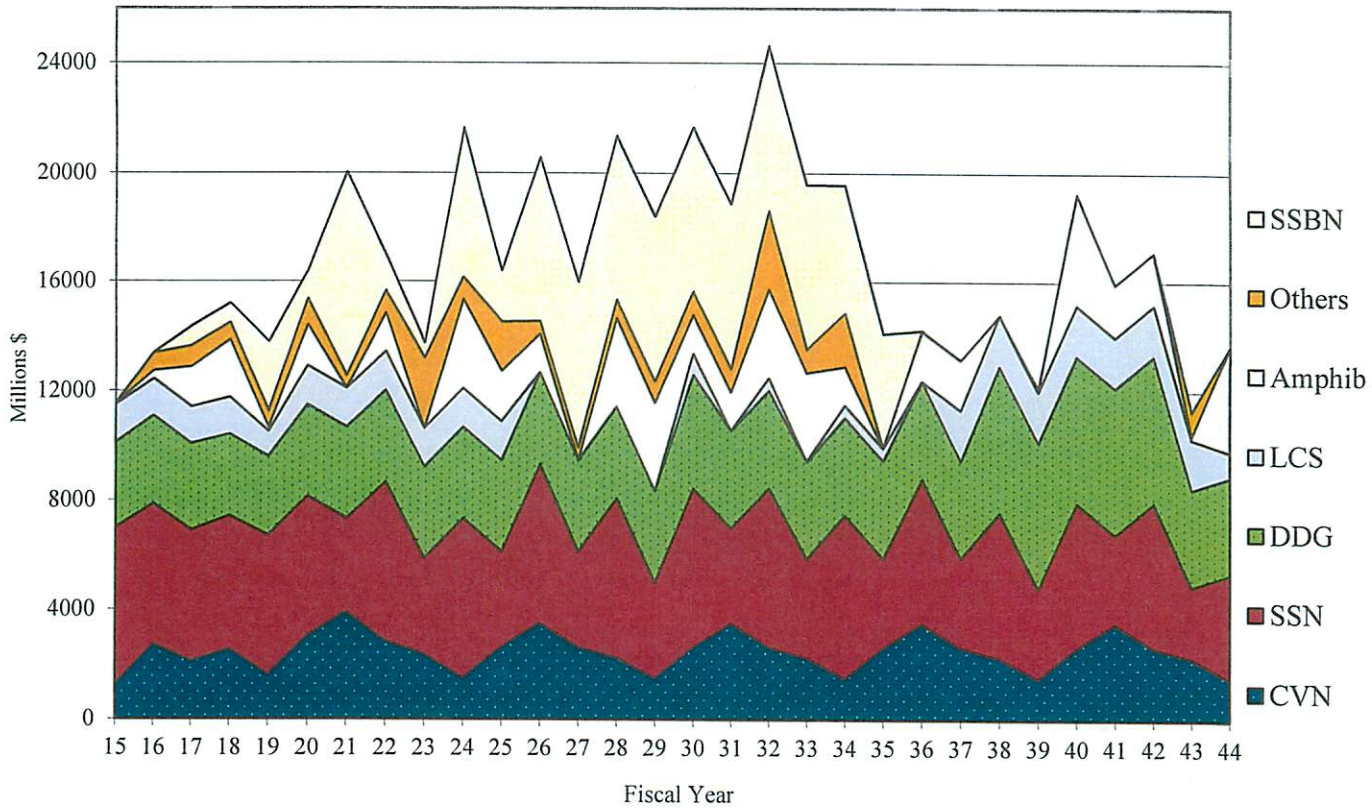
The resources displayed in this report are inflation-adjusted to constant year FY2014 dollars using a 3% ship composite inflation rate (SCIR)[6]. This inflation rate incorporates the general inflation in the U.S. economy and captures the historical increased costs in the shipbuilding industry. This SCIR more appropriately describes the inflation behavior in the unique shipbuilding sector and is computed separately for each building yard to reflect labor/material rates in these regions. This report employs a weighted average of the industrial yards SCIRs in each planning period to adjust "then year" dollars to "constant year" dollars. Therefore, while estimates of future platform costs will become less precise because the platform characteristics are less well defined, the impact of inflation on those costs are accurately addressed in this report. This enables the comparison of relative "funding levels required" from year-to-year

[6] The ship composite inflation rate is a weighted average of shipbuilding costs across the shipbuilding industrial base. This inflation rate is developed using historic shipbuilding costs and projected future pricing for each shipyard. While historically it has been 1.5-1.8 percent higher than the general market inflation rate, this gap is projected to narrow to 1.0 percent in future years.

against historical annual average costs in new ship construction funding and requirements planning within the larger DON budget. The estimated actual cost of new construction ships in any given year can be obtained by using the SCIR and inflating from the base year (FY2014).

Based on the cost of ships today, using current industrial base capacity and pricing, as reflected in Figure 1 below, we project that the required average annual budget for new ship construction for the near-term planning years of FY2015-2024 will be ~$15.7B/yr using FY2014 constant dollars. During the mid-term planning period (FY2025- FY2034), the average budget will be ~$19.7 billion per year, due in large part to SSBN recapitalization. In the far-term planning period, the average budget will be ~$14.6 billion per year. Over the entire 30-year planning horizon, of the shipbuilding plan, the estimated average budget for new ship construction (SCN) is ~$16.7 billion per year. The funding levels presented here are averages through a particular "planning period." The actual cost will vary as ship types of varying cost are added to and removed from the plan. In point of fact, the actual annual costs will vary significantly with the peak year (FY32) at slightly more than $24B, or almost twice our historic average of $13B/yr.

Figure 1. Annual Funding Required for Navy Long-Range Shipbuilding Plan (FY2015-2044) (FY2014)



Appendix 1 contains a detailed discussion of the new construction shipbuilding procurement plan on which the estimated levels of annual funding are based. The estimated total cost of construction for each vessel used to determine the estimated levels of annual funding contains proprietary information and is business sensitive. It is contained in a separate, limited distribution version of this report as Appendix 3.

VIII. Major Risks

The FY2015 President's Budget and the FYDP through FY2019 fully fund the construction of naval vessels in the plan presented in Table 1. If the DoD budget is fiscally constrained to FY2011 sequestered BCA caps beginning in FY16, the Navy will be unable to execute the plan reflected in the PB15 FYDP and will require revision to reflect the impact of those changes in resourcing levels. It is unlikely that the force remaining will be able to meet the totality of the missions described in the QDR, particularly if the Navy is also required to finance the OR SSBN. Regardless, beyond the FYDP, and as described in detail in this report, the need to recapitalize our Fleet Ballistic Missile Submarine force will cause significant and noteworthy risks to the Navy's overall shipbuilding plan. If the DON is unable to sustain the average annual shipbuilding budgets of $19.7 billion over the course of the mid-term planning period, which is unlikely to be the case, the battle force will fall far short of meeting the QDR requirements.

IX. Summary

The ship building plan described in this report, builds and maintain a battle force inventory of near or above 300 ships, and ultimately can achieve the FSA objective of 306 battle force ships. With this force structure, the Navy of 2020 can execute the defense strategy as adjusted for the findings of the QDR, with acceptable risks. This battle force has the requisite capabilities and capacity to support the National Security Strategy of the United States as required by the FY2014 National Defense Authorization Act. The strategic and operational risk to national security associated with the presented force structure of naval vessels is acceptable.

Appendix 1

Detailed Summary of Shipbuilding Costs and Requirements

I. Introduction

To summarize the resources necessary to build a 306-ship battle force, this report splits the plan's 30-year planning horizon into three 10-year planning periods. Doing so is also helpful because the precision of the plans and projections inevitably decline over time. These three periods are:

- Near-term planning period. The near-term planning period covers the two FYDPs from FY2015 to FY2024. The projections in the period are based on our most accurate understanding of required combat capabilities, future defense budget top-lines, and shipbuilding costs based on actual procurements in progress. The cost estimates for this period are the most accurate of the three planning periods.

- Mid-term planning period. The mid-term period, which covers the two FYDPs between FY2025 to FY2034, is based on projected replacement ships and their cost that we plan to build. The specific characteristics of new ships introduced in this period have yet to be determined, therefore cost estimates are based on the ships they are scheduled to replace adjusted for expected inflation. As a result, the accuracy of the plan cost estimates diminishes in this timeframe.

- Far-term planning period. The final, far-term period, covering the two FYDPs from FY2035 to FY2044, simply assumes a one-for-one replacement for ships expected to retire during this period. Since the strategic environment and state of technology 20-30 years hence are both sure to be much different than they are today, the precision and accuracy of the ship types required and cost projections in this period are much more speculative.

Using this organizational framework, the following sections describe the 30-year shipbuilding plan in more detail, and highlight the planning and resource challenges associated with each planning period.

A. Near-Term Planning Period (FY2015-FY2024)

Table A1-1 displays the DON's PB2015 (FYDP) shipbuilding plan.[7]

Table A1-1. FY2015-2019 New Construction Shipbuilding Procurement and Funding Plan (Then Year (T)Y$M)

	FY 2015		FY 2016		FY 2017		FY 2018		FY 2019		Total	
Ship Type ($M)	**$**	**Qty**	**$**	**Qty**	**$**	**Qty**	**$**	**Qty**	**$**	**Qty**	**$**	**Qty**
CVN 78[1]	1,300		2,876		2,291		2,849	1	1,865		11,181	1
DDG 51	2,805	2	3,202	2	3,312	2	3,355	2	3,337	2	16,011	10
DDG 1000	420		213		140						773	
LCS[2]	1,427	3	1,423	3	1,470	3	1,504	3	1067#	2#	6,891	14
SSN 774[3]	5,884	2	5,450	2	5,223	2	5,481	2	5,885	2	27,923	10
OR SSBN			13		778		792		2,888		4,471	
LPD 17	13		34		21						68	
LX(R)									174		174	
LHA(R)	29		280		1,569	1	2,349				4,227	1
T-AO(X)			682	1			587	1	589	1	1,858	3
MLP/AFSB					613	1					613	1
T-ATF(X)					212	2	107	1	109	1	428	4
Total New Construction	**11,878**	**7**	**14,173**	**8**	**15,629**	**11**	**17,024**	**10**	**14,847**	**6**	**73,551**	**42**

Notes:
1. Funding for the CVN 78 Class program reflects six year incremental funding authorized in the FY2013 NDAA. Advance procurement and advance construction have been previously appropriated.
2. Funding does not include LCS mission modules, which are funded in Other Procurement, Navy (OPN). # Additionally, the two ships procured in FY2019 will be determined by the Secretary of Defense directed study on small surface combatants due on 31 July 2014.
3. Advanced Procurement funding previously appropriated.

The first FYDP of the near-term planning period reflects PB2015.

- Aircraft carriers. Currently, Navy anticipates USS GERALD R FORD (CVN 78) will deliver in March 2016, about six months later than the originally planned September 2015 date. In that event, the carrier battle force level will remain at ten ships into FY2016. Navy will maintain the ex-KITTY HAWK in an out-of-commission, in-reserve status into FY2016 until delivery of FORD. USS JOHN F KENNEDY (CVN 79), the second FORD-Class nuclear-powered aircraft carrier, continues construction and will be delivered in FY2023, in time to shakedown, certify and then replace USS NIMITZ (CVN 68), which is scheduled for inactivation in FY2025. The third FORD Class carrier, USS ENTERPRISE (CVN 80), is procured in FY2018, and maintains the five-year cost centers required for a stable and steady industrial base and a long-term, steady-state carrier force structure of 10 CVNs. At the BCA funding levels, the Navy will not be able to afford to maintain an 11 CVN force. Consequently, the PB2015 budget includes planning to execute those portions of the GEORGE WASHINGTON Refueling Complex Overhaul (RCOH) planning that apply regardless of whether the final decision is to inactivate the ship or refuel it. The Navy will make a final decision on CVN 73 disposition as part of the PB2016 development process. As such, the Navy is funding dual use activities that support both an inactivation and a RCOH through FY2014 to preserve the ability to commence the RCOH as soon as

[7] In this report, new ships planned for future procurement or for replacement of legacy ships are annotated with (X) after their ship type until their class has been named, such as T-AO(X) in Table A1-1

possible following whatever final decision is made regarding the Navy's funding in FY16 and beyond.

- Large Surface Combatants (LSCs). The Navy has developed a phased modernization plan for eleven cruisers. While these ships will be de-manned, they will be available in an "as is" condition if they are needed immediately for a contingency and must be re-manned. Once these ships have completed modernization, they are planned to be returned to service equipped with the latest AEGIS Baseline, Naval Integrated Fire Control - Counter Air (NIFC-CA), Standard Missile-6 (SM-6), and SQQ-89 A (V)15 which includes the Multi-Function Towed Array (MFTA) capability. Because these ships will be extended by five years to 40 years of operational life, this strategy will mitigate the shortfall of large surface combatants during the 2030's. This additional time will allow the Navy to fully design and begin the acquisition of a new future large surface combatant.

- Ship Modernization, Operation and Sustainment Fund (SMOSF). In the FY2014 Defense Appropriation Act, Congress appropriated $2.24 billion dollars, to remain available until September 30, 2021, to retain the seven CGs and two LSDs that were proposed for inactivation in the FY2013 budget submission. As described above, in this FY2015 shipbuilding plan, the Navy presents a strategy to retain force structure using a phased modernization of CGs and LSDs that will efficiently utilize the SMOSF funding.

- The Navy will continue to build the Flight IIA version of the DDG 51 class into FY2016. In FY2016, the Navy intends to shift production to a Flight III version with the Air and Missile Defense Radar (AMDR) system, which upgrades detection capability and combat system performance with the second hull. The Flight III DDG is designed to have the appropriate power generation capacity and cooling design margin necessary to support these enhancements. These ships will provide Integrated Air and Missile Defense (IAMD) capabilities, but will also be multi mission warships and will serve as the replacement for the Flight I and II DDGs. With the assistance of Congress, Navy executed the DDG 51 multi-year procurement for FY2013 extending through FY2017, building nine ships with the option to build ten. The FY2014 Appropriations Act provided the necessary funding to allow the DON to procure the tenth ship in the multi-year procurement.

- Small Surface Combatants (SSCs). In the first FYDP, the Littoral Combat Ship (LCS) continues in full-rate production, with a total of 12 ships procured (FY2015-2018). As directed by the Secretary of Defense (SECDEF), the Navy is exploring options for SSC design, including a completely new design, existing ship designs (including the LCS) and a modified LCS. For FY2019 (two ships procured) and beyond, the procurement will be based on the results of the study. The last three FFG-7 Class ships will be decommissioned in FY2015.

- Attack submarines. Procurement of VIRGINIA Class attack submarines continues at two ships per year across the FYDP. DoD added Research, Development, Test and Evaluation (RDT&E) and non-recurring engineering funding in the FY2013-FY2017 FYDP for VIRGINIA Payload Modules (VPMs), a hull section with four large diameter payload tubes that could be inserted aft of the sail on future VIRGINIA Class SSNs. This advance engineering work will enable the DON to incorporate the VPMs in the Block V procurement program, which begins in FY2019. As reflected in the current FYDP, the Block V SSNs would be the first opportunity to incorporate this spiral upgrade.

- Amphibious landing ships. The Navy will procure the first LHA(R) Flight I amphibious assault ship in FY2017. This ship is split funded in FY2017 and FY2018. This ship will include a well deck and a reduced island to improve its surface and vertical assault capabilities. Additionally, the Navy has added advanced procurement funding in FY2019 to procure the lead LX(R) class ship in FY2020, one year later than in PB14. This class of ship will replace the Dock Landing Ship (LSD 41/49 Class) when the remaining ships of this LSD Class begin retiring in FY2027. The Navy plans to maintain eleven deployable LSDs in the active force until LX(R) delivers by rotating three LSDs to complete phased modernizations beginning in FY2016.
- Combat Logistics Force (CLF) ships. The Navy plans to procure the first T-AO(X) in the FYDP starting in FY2016 with serial production beginning in FY2018. These ships will be built with a double hull to meet International Convention for the Prevention of Pollution from Ships (MARPOL) standards while recapitalizing and maintaining operationally available Fleet Oilers (AOs).
- Joint High Speed Vessels (JHSV). The final planned JHSV was procured in FY2013, with the first two ships of the class delivered that same year. All programmed ships are planned to be delivered within the FYDP.
- Other support ships. In response to urgent needs expressed by Geographic Combatant Commanders in SOUTHCOM, AFRICOM, EUCOM and CENTCOM, the third Mobile Landing Platform (MLP) procured in FY2012 was authorized to be modified as an Afloat Forward Staging Base (AFSB) in FY2013, with a fourth and fifth MLP to be procured in FY2014 and FY2017 respectively, which will be purpose-built as AFSBs. In addition, the recapitalization of the four Fleet Tugs (T-ATF 166 Class) is expected to begin in FY2017. Due to near-term budget constraints, the Navy is planning to retire two T-ATFs and two T-ARSs in FY2016 and use leased vessels if mission workload requires additional ships. In addition, we have added the Hospital Ships (T-AHs) to the ship count based on the continuing demand for this ship class from many Combatant Commanders. This class of ship is uniquely suited to Engagement Missions and Humanitarian Assistance/Disaster Relief support and has become an important tool that Theater Commanders find useful in executing these critical missions. It is anticipated that these ships, or some form of their replacements, will be reflected as enduring requirements in the next update to the 2012 FSA. Likewise, at least one of the High Speed Transports answers a need for rapid and recurring transfer of small Marine Units in the vicinity of Guam and Okinawa and is also likely to be reflected as an enduring change to the FSA.

The second FYDP of the near-term planning period covers FY2020-FY2024.

- The near-term period's second FYDP shows continued serial production of the LCS and VIRGINIA Class SSN. The costs, schedule, and production of these ships are reliable and stable. The same is true for the Flight III DDG 51s, which are planned to be built at a steady rate of at least two per year across the period, and the T-AO, which shifts to a steady one-per-year build rate in FY2018. Additionally, the next CVN will be procured in FY2023 to continue the five-year center build profile, and the next LHA is procured at the end of this FYDP in FY2024. Five program new starts are planned in the second FYDP. The first four of five planned replacements for current Ocean Surveillance Ships (T-

AGOS), and all four planned replacements for current Salvage Ships (T-ARS) occur between FY2020 and FY2024. Navy is considering the T-ATS(X) common hull to replace both T-ATF and T-ARS ship capabilities. Additional new starts include the first of two planned replacements for current Submarine Tenders (AS), and the more complex new start for the first three LX(R)s, the replacement for the LSD 41 and LSD 49 Class Dock Landing Ships now in fleet service. The start of the LX(R) has been adjusted to FY2020. Given that the first of the legacy ships will not retire until FY2027, this procurement will meet DON replacement needs, with these ships beginning to deliver in FY2026. This procurement will help preserve the shipbuilding industrial base and maintain the long-term total amphibious inventory objective of 33 active ships.

- The most complex new start of the second FYDP of the near-term period will be the first of a new class of Fleet Ballistic Missile Submarines (OR SSBN). Current plans call for 12 new OR SSBN with life-of-the-ship, nuclear reactor cores to replace the existing 14 OHIO Class SSBNs now in commission. Detail design for the first OR SSBN begins in FY2017, and the lead ship in the class will be procured in FY2021, at a projected total cost of $12.4 billion ($4.8 billion in plans (non-recurring engineering) and $7.6 billion in ship construction) – the second ship will start in FY2024. When coupled with the four aforementioned new starts in this second FYDP, yearly shipbuilding budgets will see a sharp increase, reaching over $20 billion per year by FY2021. Despite the steep rise in yearly shipbuilding costs in the period's later years, annual shipbuilding spending over the entire near-term planning period remains at an average of $15.7 billion. With the steady delivery of ships contracted over the last few budget cycles, the overall size of the battle force increases to 315 ships by the end of the near-term. The overall battle force inventory will average about 303 ships for this 10-year, near-term period.

B. Mid-Term Planning Period (FY2025-FY2034)

Replacing the OHIO Class SSBNs will have a disproportionate impact on DON shipbuilding plans and costs throughout the mid-term planning period and into the early years of the far-term planning period. This plan reflects the current average recurring cost estimate for the second through twelfth OR SSBNs of $6 billion per submarine in FY2014 dollars. DON continues to work toward the Milestone A Acquisition Decision Memorandum target cost of $4.9 billion per ship in FY2010 dollars.[8]

Annual shipbuilding expenditures during the mid-term planning period will average about $19.7 billion per year. This is over $6 billion more per year than historical funding levels. As described above, DON will require additional funds to execute this plan and meet the requirements of the FSA.

The overall battle force inventory will average about 312 ships for this 10-year mid-term period. The following summarizes the DON's other mid-term procurement plans:

- The DON will continue building FORD Class CVNs throughout the mid-term planning

[8] 4.9 billion in FY2010 dollars, as approved in the OR Milestone A Acquisition Decision Memorandum dated January 10, 2011.

period, with cost centers in FY2028 and FY2033.

- Continuing from the near-term planning period, the DON plans to procure up to 27 of the AMDR-equipped Flight III DDG 51s. Ten of these ships, designed primarily for IAMD, including ballistic missile defense (BMD), will be built in the mid-term planning period, with the last ship being procured in FY2029. In FY2030, the DON plans to start building an affordable follow-on, multi-mission, mid-sized future surface combatant to replace the Flight IIA DDG 51s that will begin reaching their ESLs in FY2040. The requirements of this ship are in the very early stages of development. These ships will incorporate space, weight, power and cooling margins into their designs and have the flexibility and modularity to host new technologies, however due to their anticipated size they will not include the large array sensors and payloads. Due to the retirement of the TICONDEROGA Class in the Mid and Far Term Periods, the DON will review implications for the Air Defense Command capability that is vital to the Warfare Command structure of our Strike Groups.
- The Navy plans to procure 52 Small Surface Combatants (SSC). No more than 32 LCS will be procured to meet this requirement until completion of a SECDEF-directed study. With a 25-year service life, the first LCSs will begin retiring in FY2033. Consequently, a follow-on SSC needs to be procured in FY2030, in the middle of the mid-term planning period.
- The last 13 VIRGINIA Class SSNs in the current plan will be built in the mid-term planning period. RDT&E for the follow-on submarine is planned to support program initiation in FY2034.
- The OR SSBN moves into serial production throughout the mid-term period, procuring nine ships starting in FY2026.
- The DON will continue to procure Flight I LHA 6 amphibious assault ships in the mid-term period. Two of these large, multi-purpose warships will be built, one each in FY2028 and FY2032.
- The remaining eight planned LX(R)s will be procured during the mid-term planning period, with the last coming in FY2034. This build profile will help maintain the long-term inventory for amphibious ships at or above 33 ships throughout the mid-term period. In addition, the last LSD phased modernization will complete, maintaining eleven LSDs in inventory.
- The remaining nine planned double-hulled T-AOs will be procured at the rate of one-per-year through the mid-term planning period. The T-AOs will replace fifteen legacy Fleet Oilers as well as four Fast Combat Support Ships. When the last T-AO is built in the mid-term planning period, the Combat Logistics Force will consist of twelve Dry Cargo/Ammunition Ships (T-AKEs) and seventeen double-hull Fleet Oilers (T-AOs).
- The first of the ships in the JHSV class will begin to retire toward the end of the mid-term planning period. As a result, the DON intends to build a follow-on capability in FY2029.
- The DON will build the second submarine tender (AS) in FY2025, in time to replace the remaining legacy AS, which will retire in FY2030. The Navy will also complete the remaining Ocean Surveillance Ship (T-AGOS) replacement in FY2028.

- The DON will recapitalize its two Command Ships (LCCs) in FY2032 and FY2034. Both ships' service lives were extended in the near-term planning period.
- Four former OHIO Class Fleet Ballistic Missile Submarines were converted to Guided Missile Submarines (SSGNs) between FY2002 and FY2008. With their high-capacity strike and irregular warfare capabilities, these ships contribute significantly to the Navy's warfighting capability. However, given the cost of the SSBN design, the DON cannot afford to recapitalize them with new purpose-built ships. To mitigate the impact of retiring the SSBNs from service, DoD added RDT&E and non-recurring engineering funding in the FY2013-FY2017 FYDP for VPMs, a hull section with four large diameter payload tubes that could be inserted aft of the sail on future VIRGINIA Class SSNs. VPMs, once they are included in the Block V buy, will serve as an alternative to recapitalizing the SSGNs.

C. Far-Term Planning Period (FY2035-FY2044)

By the early years of the far-term planning period, the LX(R) is no longer in production and the OR SSBN is procuring its last ship, while replacements for VIRGINIA Class SSNs and both Large and Small Surface Combatants are continuing production. CVNs continue their five-year center builds with ships being procured in FY2038 and FY2043. Also, three more LHAs are procured. The only new projected starts during this period are the replacements for the SAN ANTONIO Class LPDs and the LEWIS AND CLARK Class T-AKEs. As a result, the total battle force inventory remains near or above 306 ships during the far-term planning period as average annual shipbuilding expenditures begin to fall.

The greatest planning concern during the far-term period involves our Large Surface Combatant (LSC) force. Procuring up to 27 Flight III DDG 51s between FY2016 and FY2029, following through on the CG phased modernization plan and designing and starting procurement of a mid-sized future surface combatant reduces the battle force impact of the retiring Flight I and II DDGs, the eventual retirement of the remaining CG 47 Class Guided Missile Cruisers, and the initial flight IIA DDG retirement. These near and mid-term procurements and the phased modernization strategy will maintain the LSCs inventory near the required 88 while the fleet transitions to future flexible, modular ships.

II. Funding Battle Force Requirements

DON has historically been able to resource between $12 billion and $13 billion in annual new-ship procurement funding. During the FY2015-2019 FYDP, average annual new-ship procurement funding is about $13.7 billion in FY2014 dollars. This level of investment is based on the need to balance our resources between manning, maintenance, sustainment, modernization and recapitalization of our ships, aircraft and weapons.

The cost of the OR SSBN is significant relative to the resources available to DON in any given year. At the same time, the DON will have to address the block retirement of ships procured in large numbers during the 1980s which are reaching the end of their service lives. The confluence of these events prevents DON from being able to shift resources within the shipbuilding account to accommodate the cost of the OR SSBN.

If DON funds the OR SSBN from within its own resources, OR SSBN construction will divert funding from construction of other ships in the battle force such as attack submarines, destroyers, aircraft carriers and amphibious warfare ships. The resulting battle force will not meet the requirements of the FSA. In addition, there will be significant impact to the shipbuilding industrial base.

Appendix 2

Planned Ship Decommissionings, Dismantlings, and Disposals during FY2015-FY2019 Future-Years Defense Plan (FYDP)

I. Introduction

This addendum report is in compliance with the Senate Armed Services Committee request for additional information regarding decommissioning and disposal of naval vessels.

II. Ships Planned for Decommissioning or Deactivation during the Future Years Defense Plan

Table A2-1 lists, by year, the Navy battle force ships to be decommissioned or deactivated within the FYDP. The table identifies the planned disposition for each ship. There are no potential gaps in war-fighting capability that will result from the projected ships being removed from service.

Table A2-1. Ships Planned for Decommissioning or Deactivation during the FYDP[1]

Inactivation Year (FY)	Ship Name	Disposition
2015	USS TAYLOR (FFG 50)	Foreign Military Sales
	USS GARY (FFG 51)	Foreign Military Sales
	USS MCCLUSKY (FFG 41)	Foreign Military Sales
	USS ELROD (FFG 55)	Foreign Military Sales
	USS SIMPSON (FFG 56)	Foreign Military Sales
	USSVANDEGRIFT (FFG 48)	Foreign Military Sales
14 ships	USS SAMUEL B ROBERTS (FFG 58)	Dismantle
	USS KAUFFMAN (FFG 59)	Foreign Military Sales
	USS RODNEY M DAVIS (FFG 60)	Foreign Military Sales
	USS INGRAHAM (FFG 61)	Dismantle
	USS PELELIU (LHA 5)	OCIR[2]
	USS LA JOLLA (SSN 701)	MTS[3] Conversion
	USS NORFOLK (SSN 714)	Dismantle
	USNS RAINIER (T-AOE 7)	OSIR[4]
2016	USS ALBUQUERQUE (SSN 706)	Dismantle
7 ships	USS HOUSTON (SSN 713)	Dismantle
	USS CITY OF CORPUS CHRISTI (SSN 705)	Dismantle
	USNS SAFEGUARD (T-ARS 50)	OSIR
	USNS GRASP (T-ARS 51)	OSIR
	USNS CATAWBA (T-ATF 168)	OSIR
	USNS NAVAJO (T-ATF 169)	OSIR
2017	USS DALLAS (SSN 700)	Dismantle
	USS BREMERTON (SSN 698)	Dismantle
	USS JACKSONVILLE (SSN 699)	Dismantle
6 ships	USS SAN FRANCISCO (SSN 711)	MTS Conversion
	USS BUFFALO (SSN 715)	Dismantle
	USS PONCE (AFSB (I) 15)	OCIR
2018		
0 ships		
2019	USS LOUISVILLE (SSN 724)	Dismantle
	USS PROVIDENCE (SSN 719)	Dismantle
	USS PITTSBURGH (SSN 720)	Dismantle
4 ships	USS BUNKER HILL (CG 52)	OCIR

Notes:
1. For the purposes of the report, US Navy vessels are commissioned ships that are decommissioned and removed from active status. USNS vessels are non-commissioned vessels that are deactivated and placed out of service.
2. OCIR – Out of Commission, In Reserve
3. MTS – Moored Training Ship
4. OSIR – Out of Service, In Reserve

III. Ships Planned for Dismantling and Disposal during the Future Years Defense Plan

The Navy recognizes environmental and safety risks increase as inactive ships deteriorate and their disposal is delayed. The longer retired ships sit in the inactive ship inventory, the higher the environmental risks and disposal costs. As a result, the DON has worked hard to reduce its inventory of inactive ships from the most recent high of 195 ships in 1997 to 54 ships today[9].

[9] As of 14 April 2014.

The Navy establishes its ship disposition plans based on the methods available that are most advantageous to the government. As indicated earlier, ships not identified for disposal are retained for possible future mobilization requirements. When it is determined there is little likelihood of disposal by transfer to other government organizations, Foreign Military Sales (FMS), or donation use as a museum/memorial in a public display, and when no requirements exist to support fleet training use or weapons effectiveness testing, the ship will be disposed of by dismantling. Ships designated for foreign military transfer will be retained in an FMS hold status for no more than two years. If at that time, the ships are not part of an active FMS case, the DON will review their status. Depending on the outcome of this review, the ships may remain as an FMS asset, be designated as a logistic support asset, or be dismantled.

The process for dismantling nuclear-powered ships is more complex than conventionally-powered ships and requires special care. The DON dismantles these complex ships through a special recycling process and disposal of nuclear propulsion plant components.

The removal of conventionally-powered ships by sinking is sometimes conducted as part of an approved training exercise or to support weapons testing requirements. These types of activities are generally known as sinking exercises, or SINKEXs. Inactive ships contribute significantly to the Navy in this role, as these exercises often result in cost savings for developmental programs requiring live-fire testing, provide key learning necessary to improve fleet tactics and weapons design, and provide on-going statistical data to assess weapons performance. Another alternative for sinking may be to provide an ocean bottom artifact to support fish and marine growth as an artificial reef. In both cases the Navy complies strictly with Environmental Protection Agency directives.

The Navy intends to dismantle the ships listed in Table A2-2 within the FYDP. Specific dates have not been determined as several factors dictate when the ships will be put under contract for their scrapping or, in the case of nuclear-powered ships, for their recycling. The actual date of dismantlement depends on such factors as the timing of decommissioning or deactivation; the location of the ship and attendant requirements for hull cleaning and transfer to the dismantlement facility; time available to strip the ship of any salvageable Navy components; any special holds placed on ships while reconsidering dismantlement; and availability of disposal funds.

Table A2-2. Ships Planned for Disposal by Dismantling

	Ex-SHREVEPORT (LPD 12)
Ex-TICONDEROGA (CG 47)	Ex-FORREST SHERMAN (DD 931)
Ex-THOMAS S GATES (CG 51)	Ex-HAYES (AG 195)
Ex-SARATOGA (CV 60)	USS AVENGER (MCM 1)
Ex-INDEPENDENCE (CV 62)	USS DEFENDER (MCM 2)
Ex-GEORGE PHILIP (FFG 12)	Ex-YORKTOWN (CG 48)
Ex-BOONE (FFG 28)	Ex-RANGER (CV 61)
Ex-JOHN L HALL (FFG 32)	Ex-CONSTELLATION (CV 64)
Ex-UNDERWOOD (FFG 36)	Ex-SIDES (FFG 14)
Ex-CROMMELIN (FFG 37)	Ex-STEPHEN W GROVES (FFG 29)
Ex-NICHOLAS (FFG 47)	Ex-JARRETT (FFG 33)
Ex-HAWES (FFG 53)	Ex-DOYLE (FFG 39)
Ex-FORD (FFG 54)	Ex-BOULDER (LST 1190)
Ex-REUBEN JAMES (FFG 57)	Ex-ROBIN (MHC 54)
USS SAMUEL B ROBERTS (FFG 58)	Ex-CORMORANT (MHC 57)

USS INGRAHAM (FFG 61)	Ex-SHRIKE (MHC 62)
Ex-OSPREY (MHC 51)	Ex-CANON (PG 90)
Ex-KINGFISHER (MHC 56)	Ex-RACINE (LST 1191)
Ex-BLACKHAWK (MHC 58)	
Ex-FLINT (AE 32)	
Ex-OBSERVATION ISLAND (T-AGM 23)	

Table A2-3 lists the ships that the Navy plans to dispose of by way of fleet SINKEXs during the upcoming FYDP. As mentioned previously, although SINKEXs contribute to inactive ship inventory reduction, the primary purpose of a SINKEX is to conduct weapons effectiveness testing or Fleet training. In addition to the Title 10 requirements, SINKEX events provide essential validation of modeling and simulation that reduces overall live testing requirements or meets the limited need for a target that cannot be practically provided by purpose-built targets. The Chief of Naval Operations (CNO) guidelines for the conduct of SINKEXs authorize such exercises only if they meet one of the following criteria: (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. In addition, the CNO approves all SINKEX events. In order to save the expense of maintaining inactive ships, if there are no near-term requirements for SINKEX assets, the CNO will review the status of any vessels designated for disposal by sinking, to determine if the ships should be dismantled.

Table A2-3. Ships Planned for Disposal by Sinking

Ex-FRESNO (LST 1182)
Ex-TUSCALOOSA (LST 1187)
Ex-OGDEN (LPD 5)

IV. Summary

This report outlines the Navy's plans for retired or retiring ships developed as a result of an annual Ship Disposition Review conducted on February 18, 2014. As a result of this review, the Navy plans to retire 31 battle force ships during the FYDP, with dispositions for retention in the inactive inventory, FMS, conversions, or dismantling. The Navy currently plans to dispose of 41 inactive ships for which it has no further use, 38 by dismantlement and three during SINKEXs.

Appendix 3

Appendix 3 to the Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for FY2015

Limited Distribution Appendix

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Appendix 3 to the Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for FY2015

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Appendix 4

Amphibious Class Warship Construction

I. Introduction

This addendum report is provided in compliance with the Senate Appropriations Committee S.Rept. 113-85 directing the Secretary of the Navy to provide an amphibious acquisition plan to Congress with the FY2015 budget submission.

II. Background

The Chief of Naval Operations (CNO) and Commandant of the Marine Corps (CMC) have determined that the force structure required to support a 2.0 MEB assault echelon lift is 38 amphibious assault ships. The 38 ship requirement was communicated to the four chairmen of the Appropriations and Armed Services committees by SECNAV/CNO/CMC letter dated January 7, 2009. Given fiscal constraints, DON has determined a minimum force of 33 total amphibious ships represents the limit of acceptable risk in meeting the 38-ship amphibious force lift requirements for the assault echelon in a two MEB forcible entry operation. In addition, a force of this size will provide sufficient capacity for single-ship deployments for theater security cooperation activities. A minimum of eleven LHA/LHD, eleven LPD 17, and eleven LSD 41/49s is required to meet the requirement for 30 operational ships. Thirty operationally available amphibious ships are required to lift the fiscally constrained assault echelon of 2.0 MEBs.

A strategic review was conducted in 2012 in conjunction with the new defense strategy and the FY2012 Force Structure Assessment, focused primarily on sustaining Amphibious Ready Groups/Marine Expeditionary Units forward in the Western Pacific and Persian Gulf in a crisis response role. It took risk in generating the 30 operationally available ships necessary to conduct a 2.0 MEB assault echelon forcible entry operation. To lower risk, this plan strives to maintain an active inventory of 33 active amphibious ships.

III. President's Budget (PB) FY2015 Amphibious Class Warship Plan

The FY2015 shipbuilding plan will meet the amphibious ship requirement of eleven LHA/LHDs, eleven LPDs, and eleven LSD/LX(R)s in FY2024. Eleven LHAs/LHDs will be achieved in FY2024 with delivery of LHA 8. Eleven LPD 17s will be achieved in FY17 with the delivery of LPD 27. Eleven LSDs/LX(R)s can be maintained by the LSD phased modernization plan which will retain eleven LSDs in the battle force until LX(R) delivers.

The FY2015 shipbuilding plan will result in a projected amphibious ship force structure of at least 30 ships in the near-term and maintains 33 ships throughout the majority of the 30-Year Plan. At the end of FY2015 we will have 30 amphibious ships in the inventory to include one LHA, eight LHDs, nine LPDs, and twelve LSDs. The amphibious battle force inventory across the entire 30 years is depicted in Table A4-1.

Table A4-1. FY2015-2044 Amphibious Battle Force Inventory

	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
LHA/LHD	9	9	9	10	10	10	10	10	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	10	11	10	9	9
LPD	9	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
LSD/LX (R)	12	12	12	12	12	12	12	12	12	12	12	14	13	14	13	13	12	12	13	12	10	10	11	11	11	11	11	11	11	11
Total	30	31	32	33	33	33	33	33	33	34	34	36	35	36	35	35	34	34	35	34	32	32	33	33	33	32	33	32	31	31

The Navy has developed a strategy to sustain force structure by mitigating the budget-driven force structure reductions through phased modernization of the CGs and LSDs, providing and maintaining an affordable surface force structure through the 2030s.

The Navy plans to maintain eleven deployable LSDs in the active force until LX(R) delivers by rotating three LSDs, one at a time, into a four year phased modernization period and then placing them back in service. The ship is maintained in a condition that can be reconstituted in one year if required. This will extend LSD 41 and LSD 42 (with mid-life complete) to 45 operational years of service. LSD 46 will complete a midlife availability to reach her 40 year ESL. This plan mitigates presence shortfalls and 2.0 MEB assault echelon shipping requirements.

The PB2015 plan represents the most responsible effort to balance resources with requirements, affordability, and industrial base considerations. It attempts to balance shortfalls in amphibious warfare ships, large surface combatants, and attack submarines until the FSA objectives are met.

Near-term plans (FY2015-FY2024): The Navy will procure the first LHA 6 Flight I amphibious assault ship in FY2017. This ship is split funded, with the second year fully funded in FY2018. This ship will include a well deck for added connector capability and a reduced island for improved aircraft handling and maintenance, both features added to improve the ship's surface and vertical assault capabilities. Beginning in FY2024, Navy plans to begin building LHA 6 Flight 1 ships every four years. Additionally, the Navy has added advanced procurement funding in FY2019 to procure the lead LX(R) Class ship in FY2020. This ship class will replace the Dock Landing Ship (LSD 41/49 Class) when the remaining ships of this LSD Class begin retiring in FY2027. As previously discussed the Navy plans to maintain eleven deployable LSDs in the active force until LX(R) delivers by rotating three LSDs into phased modernization periods beginning in FY2016. This plan retains two active LSDs, and mitigates presence and 2.0 MEB assault echelon shipping. This procurement plan and phased modernization strategy is designed to preserve the shipbuilding industrial base and maintain the long-term total amphibious inventory objective of 33 active ships.

The FY2013 Continuing and Furthering Appropriations Bill (P.L. 113-6) added $263 million of Advanced Procurement (AP) funding for a 12th LPD 17 amphibious transport dock ship. With the sequestration mark of approximately $20 million, the net AP appropriated for a 12th ship is $243 million. Assuming the $243 million of AP in FY2013 was leveraged, the end cost of a 12th ship in FY2014 is estimated at $2.13 billion, leaving a balance of approximately $1.9 billion of full funding required in FY2014. Accordingly, the DON has concluded that procurement of a twelfth LPD is not an affordable alternative to meeting the 33 ship amphibious force requirement. However, within the context of the LX(R) Analysis of Alternatives, the Navy is

assessing the feasibility of significantly reducing the cost of the LPD hull form through design for affordability initiatives and capability trades. The FY2015 budget has AP funding programmed in FY2019 while determination of LX(R) design/development funding requirements is assessed. This is in support of a planned procurement of the lead ship in FY2020.

Mid-term (FY2025-FY2034): The remaining eight planned LX(R)s will be procured during the mid-term planning period, with the last coming in FY2034. This build profile will help maintain the inventory for amphibious ships at or above 33 ships throughout the mid-term period. In addition the last LSD phased modernization will complete, maintaining eleven LSDs in inventory.

In the mid-term (FY2025-FY2034) the DON will continue to procure the large, multi-purpose Flight I LHA 6 amphibious assault ships, procuring the third ship in FY2028. This build profile and phased modernization strategy will help maintain the long-term inventory for amphibious ships at or above 33 ships throughout the mid-term period.

Far-term (FY2035-FY2044): The Navy continues to build three more LHAs to continue the recapitalization of the LHD and LHA 5 class platforms as they reach the end of their 45 year expected service life. The only new projected amphibious start during this period is the replacements for the SAN ANTONIO Class LPDs starting in FY2040. The amphibious force stays at or above 33 ships for the preponderance of the far-term period falling to 31 ships in the last 2 years of this period until procurement of replacement LPD 17s can catch up with retirements.

IV. Mitigating Amphibious Lift Shortfall

Ten LSDs are sufficient to source Amphibious Ready Group (ARG)/Marine Expeditionary Unit (MEU) deployments at current levels. However, the capacity to support any additional independent amphibious ship demands, such as maritime security operations, may have to be supported by hybrid variants being explored as noted below.

Naval forces also assume risk to surface assault capacity and vehicle lift in the event of a 2.0 MEB forcible entry operation. Major combat operations require all LSDs; the LSD maintenance cycle must be managed carefully to avoid delay of forcible entry timelines. The LSD phased modernization plan will maintain LSD inventory at the required eleven ships.

In the short-term, we are accepting risk to aviation and vehicle lift. We may be able to reduce the risk by relying more heavily on carrier tactical aviation for close air support and by delivering additional support vehicles via MLP/AFSB and/or JHSV to support ground maneuver. Innovative approaches and employment models are being planned to mitigate some impacts to presence missions caused by early ship retirements. With increased investment in the capabilities of JHSV and MLP/AFSB, some of the risk associated with missions in permissive environments may be reduced by increasing reliance on these platforms. These new ships can take on a

potentially valuable role in security cooperation, humanitarian assistance and disaster response, which frees up the amphibious warships to meet global warfighting demands.

V. Summary

The DON remains committed to providing sufficient amphibious lift for day to day presence as well as large-scale expeditionary operations and will reach the desired 33 amphibious ships in the near-term. The 33-ship amphibious force we are procuring will optimally be comprised of eleven LHA/Ds, eleven LPDs and eleven LSD/LX(R)s. Our proposed delivery / decommissioning profile will meet historical sourcing for Amphibious Ready Groups. The Navy remains committed to providing 30 operationally available amphibious ships to meet naval amphibious warship demand.

Appendix 5

Battle Force Level Using Previous Counting Rules

I. Update to the Counting Rules

As discussed in the body of this report, the 2012 FSA, a comprehensive and rigorous analytical assessment, determined a post-2020 battle force requirement of 306 ships and emphasized forward presence while re-examining resourcing requirements for Operational Plans and Defense Planning Scenarios. After considering the current force structure composition and evaluating the current demands of the Geographic Combatant Commanders, the DON has updated SECNAVINST 5030.8B, which governs counting rules.

The new counting methodology allows ship types routinely requested by the Geographic Combatant Commanders and allocated through the GFMAP to be counted on a case-by-case basis with the recommendation of the CNO and SECNAV approval. A temporary authorization to include these ships in the count will remain in effect until the ships are no longer requested in the GFMAP or are retired, whichever occurs first. This change will provide flexibility to the Geographic Combatant Commanders to assess the near-term environment and ensure that the ship types needed to execute the QDR are captured. This change will also add consistency to our battle force counting methodology.

II. Battle Force Inventory Using the FY2013 Counting Rules

To make clear the differences due to the counting rule changes, below is the inventory table reflected in the body of this report using the FY2013 counting rules

Table A5-1. Baseline Naval Battle Force Inventory

Fiscal Year	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
Aircraft Carrier	10	11	11	11	11	11	11	11	12	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	10	10	10	10	10
Large Surface Combatant	85	88	90	91	93	95	96	97	98	98	98	97	99	100	98	95	91	89	88	86	87	88	90	91	92	90	89	87	84	83
Small Surface Combatant	19	23	27	31	35	36	36	38	39	41	43	46	49	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Attack Submarines	54	53	50	52	51	49	49	48	49	48	47	45	44	41	41	41	43	43	45	46	48	49	51	50	51	51	51	52	52	52
Cruise Missile Submarines	4	4	4	4	4	4	4	4	4	4	4	2	1																	
Ballistic Missile Submarines	14	14	14	14	14	14	14	14	14	14	14	14	13	13	12	11	11	10	10	10	10	10	10	10	10	10	11	12	12	12
Amphibious Warfare Ships	30	31	32	33	33	33	33	33	33	34	34	36	35	36	35	35	34	34	35	34	32	32	33	33	33	32	33	32	31	31
Combat Logistics Force	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
Support Vessels	29	27	29	29	31	33	32	32	33	33	34	34	34	34	34	34	34	35	35	35	35	35	34	35	34	34	34	34	34	34
Total Naval Force Inventory	274	280	286	294	301	304	304	306	311	313	314	314	315	316	312	308	305	303	305	303	304	306	310	311	312	308	309	308	304	303