DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

MAR 28 2012

The Honorable Howard P. "Buck" McKeon
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

As required by section 231 of title 10, United States Code, I am forwarding the annual long-range plan for the construction of naval vessels. I certify that both the budget for Fiscal Year 2013 and the future-years defense program (FYDP) for Fiscal Years 13-17 provide a sufficient level of funding to procure the naval vessels specified by the plan on the schedule outlined therein.

The plan outlines the naval force structure requirements that are derived in response to the new set of strategic priorities and guidance contained in the recently released *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*; the construction plan necessary to meet these requirements; and the fiscal resources necessary to implement the plan. The plan is affordable within the FYDP but presents a resourcing challenge outside the FYDP largely due to investment requirements associated with the SSBN(X) program.

I look forward to working with you to achieve the requisite investments to safeguard our Nation's maritime strength and endurance.

Ashton B. Carter

Enclosure 1:
Annual Report to Congress on Long-Range Plan for Construction of Naval Vessels for FY2013

cc:
The Honorable Adam Smith
Ranking Member

Annual Report to Congress on Long-Range Plan for Construction of Naval Vessels for FY2013

Prepared by:

Deputy Chief of Naval Operations (Integration of Capabilities and Resources) (N8)

Office of the Chief of Naval Operations

2000 Navy Pentagon

Washington, DC 20350-2000

April 2012

Cost to prepare this report: $344,000

Long-Range Plan for Construction of Naval Vessels for FY2013

Table of Contents

Part I - Executive Summary

I.	Reporting Requirement	3
II.	Submission of the Report	3
III.	Towards a 21st Century Battle Force	3
IV.	PB2013 Long-Range Naval Vessel Construction Plan	5
V.	Estimated Levels of Annual Funding Required for the Long-Range Shipbuilding Program	5
VI.	Planning Assumptions	6

Part II – FY2013 Report

I.	Reporting Requirement	7
II.	Submission of the Report	8
III.	Towards a 21st Century Battle Force	8
IV.	PB2013 Long-Range Naval Vessel Construction Plan	11
V.	Planning and Resource Challenges	12
	A. Near-Term Planning Period (FY2013-FY2022)	13
	B. Mid-Term Planning Period (FY2023-FY2032)	15
	C. Far-Term Planning Period (FY2033-FY2042)	17
VI.	Estimated Levels of Annual Funding Required for the Long-Range Plan	18
VII.	Planning Assumptions	19
VIII.	Major Risks	19
IX.	Summary	20

Appendix 1:
Planned Ship Decommissionings, Dismantlings, and Disposals during FY2013-FY2017 Future-Years Defense Plan (FYDP) 21

Appendix 2:
Changes Between the PB2012 and PB2013 Long-Range Naval Construction Plans 25

Long-Range Plan for Construction of Naval Vessels for FY2013

Part I - Executive Summary

I. Reporting Requirement

This report is submitted in accordance with section 231 of title 10, United States Code, as amended by section 1021 of the National Defense Authorization Act for Fiscal year 2012, Public Law 112-81, which requires the Secretary of Defense to 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.

II. Submission of the Report

This report outlines the Department of the Navy's (DoN) five-year shipbuilding plan included in the President's FY2013 President's Budget (PB2013), which conforms to the defense budget topline associated with the 2011 Budget Control Act (BCA). It then provides a long-range projection of new ship construction by major ship types over the following 25-year period, and the resulting battle force inventory expected at the end of each fiscal year (FY). The plan details the naval force structure *requirements* that are derived in response to the new set of strategic priorities and guidance contained in the recently released *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense;* the construction plan necessary to build to and sustain those requirements; and the fiscal resources necessary to implement the plan.

III. Towards a 21st Century Battle Force

The strategic direction and guidance found in *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense* requires the Department of the Navy to organize, train, and equip a Navy-Marine Corps Team that is **built and ready for war, and operated forward to preserve the peace**. In general, the Team must be able to:

- Maintain a safe, secure, and effective sea-based nuclear deterrent force;
- With joint and interagency partners, particularly the US Coast Guard, defend the homeland in depth;
- With allies and like-minded nations, secure global sea lanes;
- Rebalance its posture to emphasize engagement in the Asia-Pacific and Middle Eastern regions;
- Provide a stabilizing presence in other regions by relying on innovative, low cost, and small footprint approaches;
- Respond promptly to crises with forward-deployed, combat credible forces;
- Assure access in any theater of operations, even in the face of new anti-access/area-denial (A2/AD) strategies and technologies;
- Establish control over, on, and under the sea wherever and whenever necessary; and

- Conduct a large-scale naval campaign in one region while denying the objectives of—or imposing unacceptable costs on—an opportunistic aggressor in a second region.

To accomplish this set of missions within the challenging fiscal constraints set by the 2011 BCA, the Department of the Navy is designing and building a Navy-Marine Corps Team with the capabilities and capacities that best balance war-fighting risk across the full range of potential military operations. A simple organizational construct guides the DoN's efforts, which is that naval forces operating ashore, manned and unmanned platforms operating above, on, under, and from the sea, and enablers such as distributed sensor networks and durable data and communication links, modular, adaptable payload bays, open architecture combat systems, innovative payloads, networked-enabled weapons, and flexible logistics systems—all operated by the finest Sailors and Marines in our history—should and will work as a single, inter-connected, and cohesive fighting Team.

Today's battle force numbers 282 warships of all types.[1] After accounting for the funding limits of the 2011 BCA and the specific resourcing decisions made in the recently completed strategic review, and considering the full range of supporting capabilities, capacities, and enablers found in the combined Navy-Marine Corps Team, this report assumes the 21st Century Battle Force will have about 300 warships, including:

- 12-14 fleet ballistic missile submarines;[2]
- 11 nuclear-powered aircraft carriers;
- Approximately 48 nuclear-powered attack submarines;
- 0-4 nuclear-powered cruise missile submarines;[3]
- Approximately 90 large, multi-mission, surface combatants;
- Approximately 55 small, multi-role, surface combatants;
- Approximately 32 amphibious landing ships;[4]
- Approximately 29 combat logistics force ships; and
- Approximately 33 support vessels of all types.

This projection will be informed by the completion of a formal Force Structure Assessment (FSA) and the ongoing Department of Defense review of its operational plans for potential regional contingencies.

---

[1] As of March 19, 2012

[2] DOD plans to replace the14 OHIO-class SSBNs with 12 new SSBN(X)s starting in the late 2020s.

[3] The 4 SSGNs now in service will retire in the mid-2020s. The DoN is exploring the possibility of inserting Virginia Payload Modules, a "quad-pack" of large diameter payload tubes, in Block V VIRGINIA-class attack submarines to offset the loss of SSGN strike capability.

[4] The strategic review focused primarily on sustaining Amphibious Readiness 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-Marine Expeditionary Brigade (MEB) forcible entry operation. To lower risk, this plan strives to maintain an active inventory above 32 active amphibious ships.

IV. PB2013 Long-Range Naval Vessel Construction Plan

Table ES-1 depicts the Long-Range Vessel Construction Plan necessary to build and maintain a battle force inventory of approximately 300 ships with the mix of ship types outlined in the previous section. This battle force is fully capable of meeting the strategic guidance found in *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense,* and the construction plan that builds it sustains the national shipbuilding design and industrial base.

Table ES-1. FY2013-2042 Long-Range Naval Vessel Construction Plan

Fiscal Year	13	14	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
Aircraft Carrier	1					1					1					1					1					1				
Large Surface Combatant	2	1	2	2	2	2	2	2	2	2	3	2	3	2	3	2	3	2	2	2	2	2	2	3	3	3	3	3	3	3
Small Surface Combatant	4	4	4	2	2	3	3	3	3	3	3	3	3	3				1		1		1	1	2	3	4	4	4	4	2
Attack Submarines	2	1	2	2	2	2	2	3	2	3	2	1	2	1	1	1	1	1	1	1	1	1	1	1	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		1		2		1		2	1	1	1	2				1				2		1
Combat Logistics Force				1		1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
Support Vessels	1	1		2		1	1	2		2	3	2	1			1	1	2	2	3	2	2								
Total New Construction Plan	10	7	8	9	7	11	8	12	9	12	13	12	10	9	6	9	8	9	8	11	8	8	5	7	7	10	8	11	8	8

The total inventory of battle force ships and numbers of each type of ship will vary from year to year as a result of the complex relationship between retirements, procurement, design and construction times, as well as funding availability, industrial base capacity, and war-fighting priorities. When considering all these relevant factors, the 30-year shipbuilding construction plan presented in Table ES-1 should result in the annual Naval Battle Force Inventory shown in Table ES-2, which represents the projected numbers of ships in service on the last day of each fiscal year.

Table ES-2. FY2013-2042 Naval Battle Force Inventory

Fiscal Year	13	14	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
Aircraft Carrier	10	10	11	11	11	11	11	11	11	12	11	11	11	11	12	11	11	11	11	11	11	11	11	11	11	11	11	10	10	10
Large Surface Combatant	80	78	78	80	82	84	86	87	88	87	89	89	88	89	90	89	87	85	81	80	79	78	80	82	84	86	88	88	89	88
Small Surface Combatant	35	30	26	30	32	35	39	37	38	40	39	41	43	46	49	52	55	55	55	55	55	55	55	55	55	55	55	55	55	55
Attack Submarines	55	55	54	53	50	51	51	48	48	47	47	46	45	45	44	43	43	43	45	45	46	47	48	49	50	48	49	49	48	49
Cruise Missile Submarines	4	4	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	14	14	13	12	11	11	11	10	10	10	10	10	10	10	10	10	11	12
Amphibious Warfare Ships	31	29	28	29	30	31	31	31	31	32	32	34	34	34	33	34	33	33	32	32	33	34	33	33	33	32	32	31	32	31
Combat Logistics Force	32	32	31	31	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	24	27	30	32	33	33	35	34	33	33	35	35	33	32	33	33	33	33	33	33	33	33	33	33	33	34	33	33	33	33
Total Naval Force Inventory	285	279	276	284	285	292	300	295	296	298	300	303	301	302	304	303	302	300	297	295	296	297	299	302	305	305	307	305	307	307

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

The Department of the Navy divides the 30-year planning horizon of this report into three discrete planning periods: the near-term planning period, which covers the two Future Years Defense Plans (FYDPs) between FY2013 and FY2022; the mid-term planning period, which covers the two FYDPs between FY2023 and FY2032; and the far-term planning period, which covers the two FYDPs between FY2033 and FY2042. Due to uncertainty over the exact nature of the future security environment, evolving military requirements, and the pace of technological

advancements over this 30-year planning period, the accuracy of our long-term ship and cost projections decline, perhaps dramatically, from each planning period to the next.

Based on our best estimates, we project that the required average annual spending on new ship construction in the near-term planning period to be $15.1B/year in FY2012 constant dollars.[5] During the mid-term planning period between FY2023 and FY2032, average yearly shipbuilding expenditures will climb to $19.5B/year as the DoN recapitalizes its Fleet Ballistic Missile Submarine (SSBN) force. In the far-term planning period, average yearly expenditures fall to an average of $15.9B/year. Over the entire 30-year planning horizon, the required annual spending on new ship construction, SCN and National Defense Sealift Fund (NDSF), is $16.8B/year.

VI. Planning Assumptions

This 30-year shipbuilding plan is based on several key assumptions:

- *The battle force inventory target that forms the basis for the accompanying 30-year shipbuilding report will not change substantially with the Navy Force Structure Assessment or the Department of Defense review of its operational plans for potential regional contingencies.*
- *Yearly spending on Navy shipbuilding will increase starting in the second FYDP of the near-term period, and remain at higher levels throughout the mid-term planning period before falling down to annual shipbuilding levels nearer to historical averages*
- *All battle force ships—particularly Large Surface Combatants—will serve to the end of their planned or extended service lives.*
- *The Department of the Navy will be able to maintain cost control over its major shipbuilding acquisition programs, especially once individual ship classes shift to serial production.*
- *The Department of the Navy will be able to cover the Manpower, Operations and Maintenance (MPN/O&MN), Weapons Procurement Navy (WPN), and Other Procurement Navy (OPN) costs associated with this plan.*

If any of these assumptions prove to be faulty, future shipbuilding plans will include fewer ships and battle force inventory levels will change, inevitably falling below 300 ships.

[5] Unless otherwise specified, all costing data in this report is expressed in FY2012 constant dollars.

Annual Long-Range Plan for Construction of Naval Vessels for FY2013

Part II – FY2013 Report

I. Reporting Requirement

This report is submitted in accordance with section 231 of title 10, United States Code, as amended by section 1021 of the National Defense Authorization Act for Fiscal Year 2012, Public Law 112-81, which reads as follows:

(a) ANNUAL NAVAL VESSEL CONSTRUCTION PLAN AND CERTIFICATION—The Secretary of Defense shall include with the defense budget materials for a fiscal year:

> (1) A plan for the construction of combatant and support vessels for the Navy developed in accordance with this section; and
>
> (2) A certification by the Secretary that both the budget for that fiscal year and the future-years defense program submitted to Congress in relation to such budget under section 221 of this title provide for funding of the construction of naval vessels at a level that is sufficient for the procurement of the vessels provided for in the plan on the schedule provided in that plan.

(b) ANNUAL NAVAL VESSEL CONSTRUCTION PLAN

> (1) The annual naval vessel construction plan developed for a fiscal year for purposes of subsection (a)(1) should be designed so that the naval vessel force provided for under that plan is capable of supporting the national security strategy of the United States as set forth in the most recent national security strategy report of the President under section 108 of the National Security Act of 1947 (50 U.S.C. 404a), except that, if at the time such plan is submitted with the defense budget materials for that fiscal year, a national security strategy report required under section 108 has not been submitted to Congress as required by paragraph (2) or paragraph (3), if applicable, of subsection (a) of such section, then such annual plan should be designed so that the naval vessel force provided for under that plan is capable of supporting the ship force structure recommended in the report of the most recent quadrennial defense review.
>
> (2) Each such naval vessel construction plan shall include the following:
>
> > (A) A detailed program for the construction of combatant and support vessels for the Navy over the next 30 fiscal years.
> >
> > (B) A description of the necessary naval vessel force structure to meet the requirements of the national security strategy of the United States or the most recent quadrennial defense review, whichever is applicable under paragraph (1).
> >
> > (C) The estimated levels of annual funding necessary to carry out the program, together with a discussion of the procurement strategies on which such estimated levels of annual funding are based.

(c) ASSESSMENT WHEN VESSEL CONSTRUCTION BUDGET IS INSUFFICIENT TO MEET APPLICABLE REQUIREMENTS —If the budget for a fiscal year provides for funding of the construction of naval vessels at a level that is not sufficient to sustain the naval vessel force structure specified in the naval vessel construction plan for that fiscal year under subsection (a), the Secretary shall include with the defense budget materials for that fiscal year an assessment that describes and discusses the risks associated with the reduced force structure of naval vessels that will result from funding naval vessel construction at such level. Such assessment shall be coordinated in advance with the commanders of the combatant commands.

In addition, in Senate Report 100-77 of the National Defense Authorization Act for Fiscal Year 2008 dated June 5, 2007, the Senate Armed Services Committee requested an addendum to this report that addresses the Navy's plans for decommissioning ships during the Future Years Defense Plan (FYDP). Accordingly, the following information is included with this report:

(i) Hull numbers of the ships that are to be disposed of by dismantling or sinking within the FYDP,

(ii) Hull numbers of ships that are to be decommissioned within the FYDP,

(iii) Gaps in capability that will occur upon the decommissioning of each ship, including duration of that capability gap, and

(iv) Disposition proposed for each ship upon decommissioning.

II. Submission of the Report

This report outlines the Department of the Navy's (DoN) five-year shipbuilding plan included in the President's FY2013 President's Budget (PB2013), which conforms to the defense budget topline associated with the 2011 Budget Control Act (BCA). It then provides a long-range projection of new ship construction by major ship types over the following 25-year period, and the resulting battle force inventory expected at the end of each fiscal year (FY). The plan details the naval force structure *requirements* that are derived in response to the new set of strategic priorities and guidance contained in the recently released *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense;* the construction plan necessary to build to and sustain those requirements; and the fiscal resources necessary to implement the plan.

In response to the new strategic priorities and guidance found in *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*, the Department of Defense is now reviewing and updating the requirements for naval presence and forces and its operational plans for a variety of potential regional contingencies. When these efforts are complete, the DoN will revisit and reassess the force structure judgments and decisions in a supporting Naval Force Structure Assessment (FSA).

III. Towards a 21st Century Battle Force

The strategic direction and guidance found in *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense* requires the Department of the Navy to organize, train, and equip a Navy-Marine Corps Team that is **built and ready for war, and operated forward to preserve the peace**. In general, this Team must be able to:

- Maintain a safe, secure, and effective sea-based nuclear deterrent force;
- With joint and interagency partners, particularly the US Coast Guard, defend the homeland in depth;
- With allies and like-minded nations, secure global sea lanes;
- Rebalance its posture to emphasize engagement in the Asia-Pacific and Middle Eastern regions;
- Provide a stabilizing presence in other regions, by relying on innovative, low cost, and small footprint approaches;
- Respond promptly to crises with forward-deployed, combat credible forces;
- Assure access in any theater of operations, even in the face of new anti-access/area-denial (A2/AD) strategies and technologies;
- Establish control over, on, and under the sea wherever and whenever necessary; and
- Conduct a large-scale naval campaign in one region while denying the objectives of—or imposing unacceptable costs on—an opportunistic aggressor in a second region.

To accomplish this set of missions within the challenging fiscal constraints set by the 2011 BCA, the Department of the Navy is designing and building a Navy-Marine Corps Team with the capabilities and capacities that best balance war-fighting risk across the full range of potential military operations. A simple organizational construct guides the DoN's efforts, which is that naval forces operating ashore, manned and unmanned platforms operating above, on, under, and from the sea, and enablers such as distributed sensor networks and durable data and communication links, modular, adaptable payload bays, open architecture combat systems, innovative payloads, networked-enabled weapons, and flexible logistics systems—all operated by the finest Sailors and Marines in our history—should and will work as a single, inter-connected, and cohesive fighting Team.

Since every naval force or platform should be able to draw from the combined capabilities, capacities, and enablers found in the wider Navy-Marine Corps Team, counting platforms and forces gives only a partial picture of the aggregate combat power of the combined Team. Indeed, a more thoroughly inter-connected Navy and Marine Corps allows a smaller naval force to achieve greater awareness in all operating domains—space, air, sea, undersea, land, and cyberspace—and to effectively and efficiently execute integrated, coordinated actions even when the force is conducting widely distributed naval maneuver within and across theaters, or when in disaggregated, geographically fixed sea, air, and land control missions.

As just one of many examples, swift, fast-sailing frigates were once the eyes of the fleet. In the future, the eyes of the Navy will be its Maritime Patrol and Reconnaissance Force (MPRF). With its combination of Broad Area Maritime Surveillance unmanned aerial systems and manned P-8A Poseidon Multi-mission Maritime Aircraft, the MPRF will provide US naval commanders with an unparalleled level of maritime domain awareness. As a result, counting the number of ships in the Navy's battle force no longer gives one a full appreciation for the broad, cross-domain capabilities, capacities, and enablers found in the combined Navy-Marine Corps Team.

Today's battle force numbers 282 warships of all types.[6] After accounting for the funding limits of the 2011 Budget Control Act and the specific resourcing decisions made in the recently completed strategic review, and considering the full range of supporting capabilities, capacities, and enablers found in the combined Navy-Marine Corps Team, this report assumes the 21st Century Battle Force will have about 300 warships, including:

- 12-14 fleet ballistic missile submarines;[7]
- 11 nuclear-powered aircraft carriers;
- Approximately 48 nuclear-powered attack submarines;
- 0-4 nuclear-powered cruise missile submarines;[8]
- Approximately 90 large, multi-mission surface combatants;
- Approximately 55 small, multi-role surface combatants;
- Approximately 32 amphibious landing ships;[9]
- Approximately 29 combat logistics force ships;
- Approximately 33 support vessels of all types.

This report outlines the Long-Range Naval Vessel Construction Plan necessary to build and maintain the battle force inventory outlined above and the resources necessary to implement the plan. This battle force is fully capable of meeting the strategic guidance found in *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense,* and adequately sustains the national shipbuilding and naval combat systems design and industrial base.

However the battle force inventory above should be considered an interim planning target pending the outcome of a formal Force Structure Assessment (FSA) and the ongoing Department of Defense review of its operational plans for potential regional contingencies. The final FSA-derived inventory targets will remain valid as long as there are no further changes to defense strategic guidance, the global force management allocation plan, or to Department fiscal guidance. Should changes to any of these three things occur, a further review and assessment of battle force requirements will be necessary.

---

[6] As of March 23, 2012.

[7] The 14 OHIO-class SSBNs will ultimately be replaced by 12 new SSBN(X)s starting in the late 2020s.

[8] The 4 SSGNs now in service will retire in the mid-2020s. The DoN is exploring the possibility of inserting Virginia Payload Modules, a "quad-pack" of large diameter payload tubes, in Block V VIRGINIA-class attack submarines to offset the loss of SSGN strike capability.

[9] The strategic review focused primarily on sustaining Amphibious Readiness 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-Marine Expeditionary Brigade (MEB) forcible entry operation. To lower risk, this plan strives to maintain an active inventory above 32 active amphibious ships.

IV. PB2013 Long-Range Naval Vessel Construction Plan

Table 1 depicts our PB2013 current Long-Range Naval Vessel Construction Plan (or 30-year Shipbuilding Plan). Because of the large capital costs associated with maintaining a world-class Navy, any shipbuilding plan represents an enormous demand on the Nation's resources. Accordingly, the plan in Table 1—like all DoN 30-year shipbuilding plans—is built on three basic principles. First, the plan is based on a defendable projection of what type and how many ships the Navy will need to accomplish its assigned missions over the next three decades. Second, the plan balances needs against programmed resources in the near-term, and expected resources in the mid and far-term, and assesses the risks associated with the Department's balancing efforts. Finally, the plan aims to maintain an adequate shipbuilding design and industrial base to build and sustain tomorrow's Navy.

Table 1. FY2013-2042 Long-Range Naval Vessel Construction Plan

Fiscal Year	13	14	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
Aircraft Carrier	1					1					1					1					1					1				
Large Surface Combatant	2	1	2	2	2	2	2	2	2	2	3	2	3	2	3	2	3	2	2	2	2	2	2	3	3	3	3	3	3	3
Small Surface Combatant	4	4	4	2	2	3	3	3	3	3	3	3	3	3				1		1		1	1	2	3	4	4	4	4	2
Attack Submarines	2	1	2	2	2	2	2	3	2	3	2	1	2	1	1	1	1	1	1	1	1	1	1	1	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		1		2		1		2	1	1	1	2				1				2		1
Combat Logistics Force				1		1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
Support Vessels	1	1		2		1	1	2		2	3	2	1			1	1	2	2	3	2	2								
Total New Construction Plan	10	7	8	9	7	11	8	12	9	12	13	12	10	9	6	9	8	9	8	11	8	8	5	7	7	10	8	11	8	8

Several key factors play a significant role when developing a plan like the one depicted in Table 1, which spans six Future Years Defense Plans (FYDPs). 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. Ship acquisition costs range from hundreds of millions to several billions of dollars. Given the capital investment required, naval vessels are procured in relatively low numbers which can cause high and low cycles in annual budget requirements. 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 US shipyards. This makes the timing of ship procurement a critical matter to the health and sustainment of US shipbuilding and combat system industries.

Finally, any new construction plan must take into account the expected retirement of ships during the 30 year period. Ships' service lives can range from 20 years for smaller ships to 50 years for nuclear-powered aircraft carriers. This requires the DoN to design ships that can accommodate capability upgrades throughout their time in service in order to remain operationally and tactically relevant—and helps to explain the DoN's emphasis on open, flexible payload bays and open architecture combat systems. At some point, however, a ship can no longer be economically updated or extended, and must be retired. In general, ships are retired at the very end of their expected (or extended) services lives. However, the Navy continually reviews the material condition of all ships as they progress through their service lives to assess the efficacy of the assigned expected service life and whether the service life should be adjusted.

The total inventory of battle force ships and numbers of each type of ship will vary from year to year as a result of the complex relationship between retirements, procurement, design and construction times, as well as funding availability, industrial base capacity, and war-fighting

priorities. When considering all these relevant factors, the 30-year shipbuilding construction plan presented in Table 1 should result in the annual Naval Battle Force Inventory shown in Table 2, which represents the projected numbers of ships in service on the last day of each fiscal year.

Table 2. FY2013-2042 Naval Battle Force Inventory

Fiscal Year	13	14	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
Aircraft Carrier	10	10	11	11	11	11	11	11	11	12	11	11	11	11	12	11	11	11	11	11	11	11	11	11	11	11	11	10	10	10
Large Surface Combatant	80	78	78	80	82	84	86	87	88	87	89	89	88	89	90	89	87	85	81	80	79	78	80	82	84	86	88	88	89	88
Small Surface Combatant	35	30	26	30	32	35	39	37	38	40	39	41	43	46	49	52	55	55	55	55	55	55	55	55	55	55	55	55	55	55
Attack Submarines	55	55	54	53	50	51	51	48	48	47	47	46	45	45	44	43	43	43	45	45	46	47	48	49	50	48	49	49	48	49
Cruise Missile Submarines	4	4	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	14	14	13	12	11	11	11	10	10	10	10	10	10	10	10	10	11	12
Amphibious Warfare Ships	31	29	28	29	30	31	31	31	31	32	32	34	34	34	33	34	33	33	32	32	33	34	33	33	33	32	32	31	32	31
Combat Logistics Force	32	32	31	31	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	24	27	30	32	33	33	35	34	33	33	35	35	33	32	33	33	33	33	33	33	33	33	33	33	33	34	33	33	33	33
Total Naval Force Inventory	285	279	276	284	285	292	300	295	296	298	300	303	301	302	304	303	302	300	297	295	296	297	299	302	305	305	307	305	307	307

V. Planning and Resource Challenges

All of the above factors complicate the development of any coherent long-range shipbuilding plan. However, these more routine planning challenges are compounded by an even more serious planning and resource challenge facing the Department over the coming 30-year period. The ships brought into service during the 1980s to serve in the Cold War "600-ship Navy"—some procured at a rate of four to five ships per year in a single class—will all retire over the 30-year planning period. Given that the 21st Century Battle Force is projected to be about half the size of the Cold War fleet, and when considering expected resource constraints, the DoN cannot recapitalize its legacy ships at the same rate at which they were originally procured. Indeed, as shown in Table 1, over the next 30 years the DoN will procure a total of 268 ships of all types, for an average of about 9 ships per year; at no time will any single ship type or ship class be procured at a rate greater than three ships per year, with the exception of relatively inexpensive small surface combatants (i.e., Littoral Combat Ships).

Even the relatively low numbers found in Table 1 assume the Department of the Navy will utilize spiral upgrades to existing ships to the maximum extent possible, extend the service lives of specific classes of ships, and operate every ship procured to the very end of its expected service life. All of these measures will help maintain the size of the battle force inventory during the heavy ship retirement period expected in the 2020s and 2030s. However, even after all of these measures are taken, executing even the relatively modest build plan found in Table 1 within expected future resource limitations will present a stiff planning and resource challenge.

To outline the resources necessary to build a 300-ship battle force that best meets projected requirements, and to better describe the DoN's coming numbers-resource challenge, this report splits the plan's 30-year planning horizon into three 10-year planning periods. Doing so is also helpful because the accuracy of our plans and projections inevitably decline, perhaps dramatically, over time. These three periods are the:

- Near-term planning period. The near-term planning period covers the two Future Year Defense Plans (FYDPs) between FY2013 through FY2022. The projections in this period are based on our most accurate understanding of required combat capabilities, future defense budget toplines, and shipbuilding costs. The cost estimates for this period are therefore the most accurate of the three planning periods.

- Mid-term planning period. The mid-term period, which covers the two FYDPs between FY2023 to FY2032, is based on a projection of numerous new replacement ships we now plan to build. The costs for these ships have yet to be informed by formal analyses of alternatives, and are therefore based on inflation-adjusted projections of the building costs for the ships they are scheduled to replace. As a result, the accuracy of plan cost estimates diminishes for the force structure estimates in this timeframe.

- Far-term planning period. The final, far-term period, covering the two FYDPs from FY2033 to FY2042, 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 ship and cost projections in this period are much more speculative.

Using this organizational framework, the following sections will describe the PB2013 30-year shipbuilding plan in more detail, and highlight the unique institutional management and resource challenges associated with each planning period.

A. Near-Term Planning Period (FY2013-FY2022)

Table 3 displays the Department of the Navy's new ship construction procurement and funding plans in the first FYDP of the near-term planning period, as reflected in the FY2013 President's Budget submission.[10]

Table 3. FY2013-2017 New Construction Shipbuilding Procurement and Funding Plan (TY$M)

	FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		Total	
Ship Type ($M)	**$**	**Qty**	**$**	**Qty**	**$**	**Qty**	**$**	**Qty**	**$**	**Qty**	**$**	**Qty**
CVN 78[1]	608	1	666		2,999		1,662		2,868		8,803	1
DDG 51	3,515	2	2,014	1	3,002	2	3,508	2	4,048	2	16,088	9
LCS[2]	1,785	4	1,820	4	1,881	4	1,013	2	896	2	7,395	16
SSN 774[3]	4,092	2	4,607	1	6,282	2	5,727	2	5,528	2	26,237	9
SSBN(X)									778		778	
LPD 17			54		38		24				116	
LHA(R)					79		240		2,097	1	2,416	1
T-AO(X)							694	1			694	1
MLP	38		562	1							600	1
T-ATF(X)							216	2			216	2
JHSV	189	1									189	1
Total New Construction	**10,228**	**10**	**9,722**	**7**	**14,281**	**8**	**13,085**	**9**	**16,215**	**7**	**63,532**	**41**

Notes:
1. Funding for the CVN 78-class program reflects a FY2013 request for Congressional authorization to incrementally fund nuclear aircraft carrier full procurement funding over a six-year period. 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).
3. Advanced Procurement/Economic Order Quantity (EOQ) funding previously appropriated.

The first FYDP of the near-term planning period sees the Department of the Navy building ships within established BCA budget limits. To achieve this plan, Department leaders must maintain

[10] 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-ATF(X) in Table 3.

strict cost control on those new ships now in production, and successfully and cost-effectively manage the design, building, and introduction of several new classes of ships.

- Aircraft carriers. JOHN F. KENNEDY (CVN 79), the second GERALD R. FORD (CVN 78)-class nuclear-powered aircraft carrier, will be authorized in FY2013. CVN 79 will incorporate the lessons learned from the first ship-of-class. This carrier will be delivered in time to replace USS *Nimitz* (CVN 68) in FY2023.

- Large surface combatants (LSCs). The Navy reopened the ARLEIGH BURKE DDG production line in FY2010, and continues to build the very capable Flight IIA version of the ship through FY2016. In FY2016, however, the Navy will shift production to the Flight III variant with the new, more powerful Air and Missile Defense Radar (AMDR) system with upgrades in detection capability and combat system performance. The Flight III will also have the appropriate power generation capacity and cooling necessary to support these enhancements. Accordingly, these ships will be the battle force's premier integrated air and missile defense (IAMD) platforms, and will replace the legacy TICONDEROGA (CG 47)-class cruisers. The Navy is requesting authority for a 9-boat multi-year procurement starting in FY2013 and extending through FY2017 in the next FYDP. Original plans called for a building profile of 2-2-2-2-1 starting in FY2013. However, to accommodate 2011 BCA funding limits, the profile was changed to 2-1-2-2-2.

- Small surface combatants (SSCs). Throughout the first FYDP, the Littoral Combat Ship (LCS) continues in full-rate construction, with a total of 16 ships procured. This is two ships fewer than in the PB2012 plan, a result of 2011 BCA funding limits.

- Attack submarines: Procurement of VIRGINIA (SSN 774)-class attack submarines also continues across the FYDP. The Navy is requesting authority for a 9-boat multi-year procurement starting in FY2014 and extending through FY2018 in the next FYDP. Original plans called for a building profile of 2-2-2-2-1 starting in FY2014. However, to accommodate 2011 BCA funding limits, the profile was changed to 1-2-2-2-2.

- Amphibious assault ships. The Navy will procure the first LHA (R) Flight 1 amphibious assault ship in FY2017, one year later than originally expected. Current plans call for this ship to include a well deck and a reduced island to improve its surface and aerial assault capabilities.

- Combat Logistics Force (CLF) ships: The Navy plans to procure the first T-AO (X) in FY2016, built with a double hull to meet International Convention for the Prevention of Pollution from Ships (MARPOL) standards. While this represents a delay in construction from last year's plans, the delay will have no impact on the number of operationally available Fleet Oilers.

- Joint High Speed Vessels. The last of ten planned JHSVs is procured in FY2013. This reflects a drop in planned ship construction compared to last year's plan. This drop is a function of two things. First, the overall requirement for JHSVs, as validated in the just completed strategic review, fell from 16 to 10 ships. Second, the Department of the Army transferred the 5 JHSVs it procured to the Department of the Navy as an efficiency measure. These two actions prompted the DoN to halt planned JHSV production at 10 ships.

- Other support ships: In response to urgent needs expressed by Combatant Commanders in several theaters, a fourth Mobile Landing Platform is added in FY2014, and modified to serve as Afloat Forward Staging Bases (AFSB). Current plans call for the third MLP, authorized in FY2012, to also be modified to an AFSB configuration. In addition, the T-ATF(X) procurement in FY2016 begins the recapitalization of the four retiring Fleet Tugs (T-ATF 166 class).The near-term period's second FYDP sees continued serial production of the Littoral Combat Ship and VIRGINIA-class SSN. The costs for these ships are well known and stable. The third of FORD-class CVN is procured in FY2018, maintaining the five-year cost centers required for a long-term, steady-state carrier force structure of 11 CVNs. By this time, the costs for this ship should be completely stable. The same goes for the Flight III DDG 51s, which are built at a steady rate of 2/year across the FYDP, and the T-AO(X), which shifts into a steady one-per-year build rate in FY2020. Also during this period, the last two of four Fleet Tugs are procured.

New starts in the second FYDP include the first two of five planned replacements for current Ocean Surveillance Ships (T-AGOS(X)), and the first two of four planned replacements for current Salvage Ships (T-ARS(X)). These are both relatively small and inexpensive ships. A larger and more complex new start will be the first three LSD(X)s, the replacement for LSD 41 and 49 Dock Landing Ships now in fleet service. As the first of these legacy ships will not retire until FY2026, this procurement action is ahead of need; it is being taken primarily to preserve the shipbuilding industrial base and to maintain a long-term total amphibious inventory slightly above 32 active ships. The additional ships in the inventory will help reduce the risk associated with generating the 30 operationally available amphibious ships needed to support a two-Marine Expeditionary Brigade forcible entry operation.

Without question, however, the most complex new start of the second FYDP, if not the entire 30-year planning period, will be the first of a new class of Fleet Ballistic Missile Submarines (SSBN(X)). Current plans call for 12 new SSBN(X)s with life-of-the-ship, nuclear reactor cores to replace the existing 14 OHIO-class SSBNs now in commission. Detail design for the first SSBN(X) begins in FY2017, and the lead ship in the class will be procured in FY2021, at the end of the first planning period, at a projected total cost of $11.7B ($4.5B in plans (non-recurring engineering) and $7.2B in ship construction). When coupled with the three aforementioned new starts in this second FYDP, yearly shipbuilding budgets will see a sharp increase, topping $20B/yr 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 averages $15.1B, which is aligned with historical norms. And, with the steady delivery of ships contracted over the last few budget cycles and in the period's first FYDP, the overall size of the battle force begins a slow but steady climb, reaching 300 ships by FY2019 before falling slightly between FY2020 and FY2022.

B. Mid-Term Planning Period (FY2023-FY2032)

This high cost for replacing the nation's secure, second-strike nuclear deterrent force will have a disproportionate impact on DoN shipbuilding plans and associated costs throughout the mid-term planning period and into the early years of the far-term planning period. This plan assumes the average recurring affordability target for the second through twelfth SSBN(X)s will be $6.025B per boat. This cost reflects a concerted DoN effort to rationalize the boat's requirements, which cut the projected recurring cost for the boats by nearly $1B. The SSBN(X) Milestone A Acquisition Decision Memorandum established an even lower affordability target of $5.3B per

boat.[11] While the DoN cannot yet state with certainty it will achieve this aggressive target, it is committed to meeting this goal. Indeed, the DoN PB2012 budget submission added $150M in research and development dollars to explore ways to drive down the recurring costs for follow-on boats.

Obviously, spending $5-6B per year for a single ship over a 10 to 12-year period will strain the DoN's yearly shipbuilding accounts, since the Department must continue to build other ships throughout this period to maintain the overall battle force inventory at about 300 ships. The following provides a quick summary of our other mid-term procurement plans.

- The DoN will continue building FORD-class CVNs throughout the mid-term planning period, with cost centers in FY 2023 and FY2028.
- The DoN plans to procure up to 33 of the AMDR-equipped Flight III DDG 51s started in the near-term planning period. Twenty of these ships, designed primarily for integrated air and missile defense, including ballistic missile defense (BMD) will be built in the mid-term planning period, with the last coming in FY2030. In FY2031, the Department plans to start building an affordable follow-on, multi-mission DDG to replace the large number of Flight I, II, and IIA DDG 51s that start to retire in the mid to late-2020s. The requirements of this ship have yet to be defined.
- The DoN will continue to procure both versions of the Littoral Combat Ship through FY2026, and achieve the 55-ship inventory objective in FY2029. With a 25-year service life, the first LCS will retire in FY2033. Consequently, the first follow-on LCS(X) will be procured in FY2030 at the end of the mid-term planning period.
- The last 10 VIRGINIA-class SSNs will be built in the mid-term planning period. RDT&E for the VIRGINIA replacement submarine, tentatively known as SSN-774(X), will be geared for a first start in FY2033, the first year of the far-term planning period.
- The DoN will continue to procure Flight I LHA(R) amphibious assault ships in the mid-term period. Three of these large, multi-purpose warships will be built every four years, starting in FY2024.
- Three of 10 planned LSD(X)s are to be procured in the near-term planning period, all ahead of need. The remaining 7 ships will be procured during the mid-term planning period, with the last coming in FY2032. This building profile, which helps preserve the shipbuilding industrial base, will help maintain the long-term inventory for amphibious ships at or above 32 ships from FY2022 through FY2040.
- Five of 17 planned double-hulled T-AO(X)s are to be procured in the near-term planning period. Ten of 12 remaining oilers will be procured at the rate of one-per-year through the mid-term planning period. The T-AO(X)s will replace 15 legacy Fleet Oilers as well as 4 SUPPLY-class Fast Combat Support Ships. When the last T-AO(X) is built in the far-term planning period, the Combat Logistics Force will consist of 12 T-AKE Dry Cargo/Ammunition Ships and 17 Fleet oilers.

[11] $4.9B in FY2010 dollars, as approved in the OHIO Replacement (OR) Program Milestone A Acquisition Decision Memorandum dated Jan 10 2011.

- The first class of JHSVs will begin to retire toward the end of the mid-term planning period. As a result, the DoN plans to start building the first JHSV(X) follow-on in FY2029.

- The DoN will build Submarine Tenders (ASs) in FY2023 and FY2025, in time to replace the 2 legacy ASs, which will retire in FY2029 and FY2030. The Navy will also complete the last 2 T-ARS(X) Salvage Ships and last 3 T-AGOS Ocean Surveillance Ships in the mid-term planning period.

- The Department will recapitalize the first of its two Command Ships (LCCs), whose service lives were extended in the near-term planning period, starting in FY2032.

- 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 war-fighting capability. However, given the cost pressures caused by the SSBN(X), the DoN cannot afford to recapitalize them. As a result, the aforementioned strategic review added RDT&E and non-recurring engineering funding in the FY2013-FY2017 FYDP for Virginia Payload Modules (VPMs), a "quad-pack" of large diameter payload tubes that could be inserted aft the sail of future VIRGINIA-class SSNs. If future budgets allow, this advance engineering work will enable the DoN to consider incorporating VPMs in the FY2019 Block V VIRGINIA Class buy.

To cover both the SSBN(X) program as well as other shipbuilding programs, yearly shipbuilding expenditures during the mid-term planning period will need to average about $19.5B/year. This is over $4B more per year than in the near-term planning period, and nearly $3B more per year than the steady-state 30-year average requirement of $16.8B/year. The Department is doing everything in its power to try to reduce projected yearly shipbuilding costs during this period, such as trying to reduce the recurring cost of the second through twelfth SSBN(X)s to $5.3B, down from a projected $6B. Even if these efforts are successful, however, sustaining a viable overall ship construction plan during this period will be the key challenge for the Department over the 30-year planning period covered by this report. That said, if all the foregoing plans come to fruition, the overall battle force inventory will remain above 300 ships for 8 of 10 planning years.

C. Far-Term Planning Period (FY2033-FY2042)

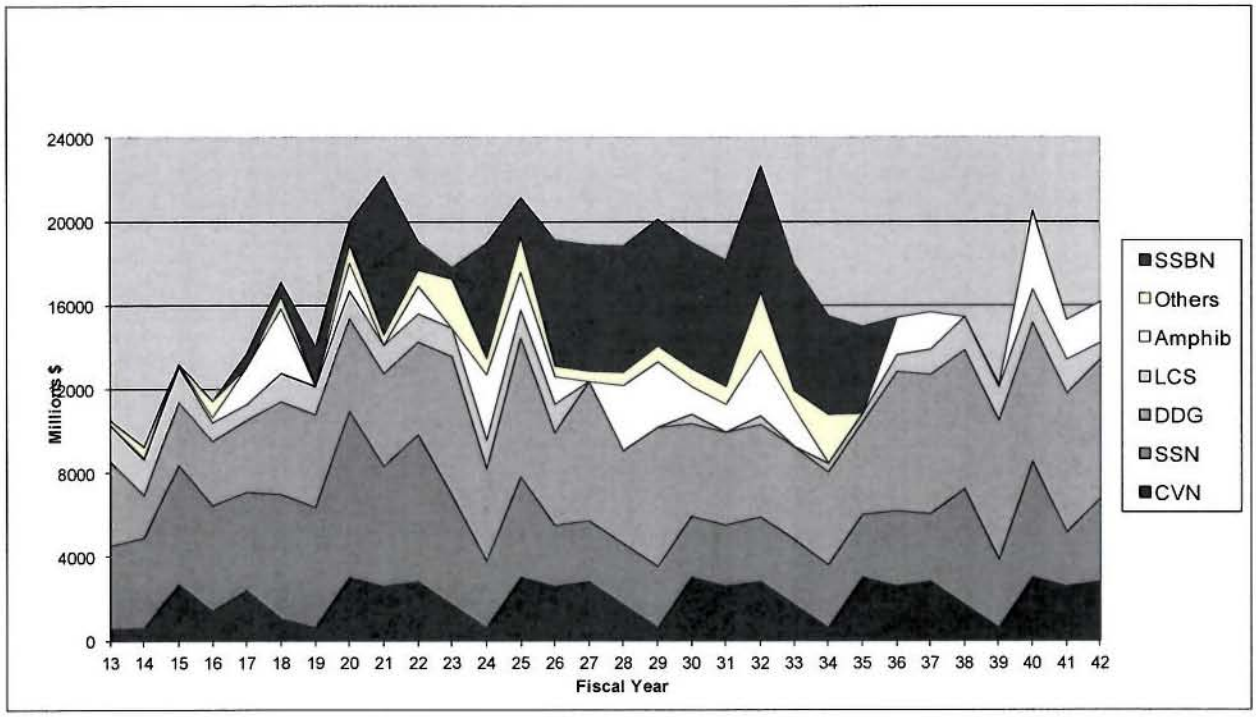
By the early years of the far-term planning period, the SSBN(X) and LSD(X) are no longer in production, and both Large and Small Surface Combatants are well into their production runs. The only new projected starts during this period are the replacements for VIRGINIA-class SSNs and SAN ANTONIO-class LPDs. As a result, the total battle force inventory begins to climb, reaching 307 ships by FY2042, even as average annual shipbuilding expenditures begin to fall. Indeed, projected average yearly shipbuilding expenditures for the entire far-term planning period fall by $3.6B/year to $15.9B/year.

The greatest planning concern during the far-term period involves our Large Surface Combatant force. The 33 Flight III DDG 51s to be procured between FY2016 and FY2030 will replace legacy CG 47-class Guided Missile Cruisers, and improve the integrated air and missile defense of the battle forces. Due to the already pressurized funding situation in the mid-term planning period due to the SSBN(X), however, the DoN will not be able to start building the follow-on LSCs soon

enough to keep up with the large number of legacy DDGs scheduled to retire in the FY2033-FY2042 timeframe. In order to ameliorate this problem, the DoN plans to extend the service lives of all Flight IIA DDG 51s (starting with DDG 79) to 40 years in an effort to reduce the impact of the DDG 51 retirement schedule on overall LSC force structure. However, even with this measure, and starting a sustained LSC build rate of three ships-per-year in FY2036, the LSC inventory will fall to a low of 78 ships in FY2034—15 below the current planning requirement—before rebounding to 88 LSCs in FY2039. Department leadership is focused on this problem, and is examining a variety of ways to mitigate the shortfall. However, as this problem demonstrates, the impact of the SSBN(X) program will be wide and deep throughout the mid- and far-term planning periods.

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

Figure 1. Annual Funding Required for Navy Long-Range Shipbuilding (FY2013-2042) (FY2012$)



Note: This estimate shows funding required for the Navy's combat and support force.

Figure 1 depicts the annual shipbuilding funding requirements necessary to implement the DoN's Long-Range Naval Vessel Construction Plan. Within the constraints discussed above, we believe this chart accurately reflects shipbuilding costs over the near, mid, and long-term planning periods, although the DoN's confidence in cost projections declines over time. In the near-term, this equates to an average of approximately $15.1B/year. During the mid-term planning period between FY2023 and FY2032, average yearly shipbuilding expenditures will climb to $19.5B/year as the DoN recapitalizes its SSBN(X) force. In the far-term planning period, average yearly expenditures fall to an average of $15.9B/year. Over the entire 30-year planning horizon, the required annual spending on new ship construction, SCN and National Defense Sealift Fund (NDSF), is $16.8B/year.

The Department recognizes that its 30-year shipbuilding plan represents an enormous demand on national resources, and is committed to maintaining stability in planned requirements, funding and shipbuilding profiles in order to tightly control the demands on these precious resources. The Department is also committed to working closely with the shipbuilding and combat systems industries to implement its plans within the projected funding profile.

VII. Planning Assumptions

This 30-year shipbuilding plan is based on several key assumptions:

- *The battle force inventory target that forms the basis for the accompanying 30-year shipbuilding report will not change substantially with the Navy Force Structure Assessment or the ongoing Department of Defense review of its operational plans for a variety of potential regional contingencies.* Individual ship targets may vary slightly based on a detailed analysis of Combatant Commander requirements in light of the new defense strategy.

- *Yearly spending on Navy shipbuilding must increase starting in the second FYDP of the near-term period, and remain at higher levels throughout the mid-term planning period before falling down to annual shipbuilding levels nearer to historical averages.* During the 2020s and early 2030s, a large number of surface ships and submarines built during the Cold War build-up in the 1980s and early 1990s—particularly the OHIO-class SSBNs—will reach the end of their service lives. This will inevitably cause the annual shipbuilding expenditures from FY2020 through FY2032 to be higher than those seen from the mid-1990s through 2020.

- *All battle force ships—particularly Large Surface Combatants—will serve to the end of their planned or extended service lives.* In this fiscal environment, the DoN can ill-afford to inflate future shipbuilding requirements by retiring ships earlier than planned.

- *The Department of the Navy will be able to maintain cost control over its major shipbuilding acquisition programs, especially once individual ship classes shift to serial production.* The Department will need to focus on limiting overruns for first ships-of-class.

- *The Department of the Navy must still be able to cover the Manpower, Operations and Maintenance (MPN/O&MN), Weapons Procurement Navy (WPN), and Other Procurement Navy (OPN) costs associated with this plan.* DoN leaders are committed to avoiding a "hollow force."

If any of these assumptions prove to be faulty, future shipbuilding plans will include fewer ships and battle force inventory levels will change, inevitably falling below 300 ships.

VIII. Major Risks

The FY2013 President's Budget and the Future Years Defense Plan through FY2017 fully funds the construction of naval vessels in the plan presented in Table 1. Beyond the FYDP, however, and as described in detail in this report, the need to recapitalize our Fleet Ballistic Missile Submarine force will cause noteworthy risks to the Navy's overall shipbuilding plan. If the DoN is unable to sustain average annual shipbuilding budgets of $19.5B over the course of the mid-term planning period, plans to recapitalize the Nation's secure second-strike nuclear deterrent

and the Navy's conventional battle force will have to be dramatically changed, and the overall size of the battle force will drop below the levels needed to meet all naval presence and warfighting requirements.

IX. Summary

The shipbuilding program described in this report builds and maintains a battle force inventory of approximately 300 ships, which will be refined with the completion of an ongoing Force Structure Assessment. This battle force is part of a broader Navy-Marine Corps Team that is built and ready for war, and operated forward to preserve the peace. The battle force represents an integrated and balanced fleet with the necessary capabilities and capacities to meet anticipated future demands for forward presence, deterrence, and war-fighting missions.

Driven largely by SSBN(X) costs in the mid-term, this plan requires an average steady-state annual investment of $16.8B over the next 30-year period. This resource allocation level is somewhat higher than the shipbuilding investments made over the past decade, which has seen two long ground wars. If these shipbuilding investments are not funded, the battle force inventory will inevitably decline to well below 300 ships.

Appendix 1

Planned Ship Decommissionings, Dismantlings, and Disposals during FY2013-FY2017 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:

> *The Committee directs the Secretary of Defense to include, as an addendum to the annual report on the construction of naval vessels, commencing with submission of the report for fiscal year 2009, Navy's plans for decommissioning ships during the Future Years Defense Plan (FYDP). The addendum shall address: (i) hull numbers of ships that are to be disposed by dismantling or sinking within the future-years defense plan; (ii) hull numbers of ships that are to be decommissioned within the future-years defense plan; (iii) gaps in capability that will occur upon the decommissioning of each ship, including duration of that capability gap; and (iv) disposition proposed for each ship upon decommissioning.*

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

Table A1-1 lists, by year, the Navy ships that are 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. USS PONCE (LPD 15), originally scheduled for decommissioning in FY12, will be retained in service and redesignated as an interim Afloat Forward Staging Base (AFSB(I)) to support mine warfare missions in the 5th Fleet Area of Operations.

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

The Navy recognizes that 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.

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 that there is little likelihood of disposal by transfer to other government organizations, foreign military sales, 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 a 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 dismantled.

Table A1-1. Ships Planned for Decommissioning or Deactivation[1] during the FYDP

Inactivation Year (FY)	Ship Name	Disposition
2013	USS ENTERPRISE (CVN 65)	Dismantle
	USS UNDERWOOD (FFG 36)	Foreign Military Sales
	USS CROMMELIN (FFG 37)	Foreign Military Sales
	USS CURTS (FFG 38)	Foreign Military Sales
	USS KLAKRING (FFG42)	Foreign Military Sales
11 ships	USS REUBEN JAMES (FFG 57)	Foreign Military Sales
	USS CARR (FFG 52)	Foreign Military Sales
	USS COWPENS (CG 63)	OCIR[2]
	USS ANZIO (CG 68)	OCIR
	USS VICKSBURG (CG 69)	OCIR
	USS PORT ROYAL (CG 73)	OCIR
2014	USS DENVER (LPD 9)	OCIR
	USS WHIDBEY ISLAND (LSD 41)	OCIR
	USS TORTUGA (LSD 46)	OCIR
	USS HALYBURTON (FFG 40)	Foreign Military Sales
	USS MCCLUSKY (FFG 41)	Foreign Military Sales
	USS THACH (FFG 43)	Foreign Military Sales
	USS DE WERT (FFG 45)	Foreign Military Sales
	USS RENTZ (FFG 46)	Foreign Military Sales
14 ships	USS NICHOLAS (FFG 47)	Foreign Military Sales
	USS ROBERT G BRADLEY (FFG 49)	Foreign Military Sales
	USS GETTYSBURG (CG 64)	OCIR
	USS CHOSIN (CG 65)	OCIR
	USS HUE CITY (CG 66)	OCIR
	USS DALLAS (SSN 700)	Dismantle
2015	USS PELELIU (LHA 5)	OCIR
	USNS FLINT (T-AE 32)	Dismantle
	USS TAYLOR (FFG 50)	Foreign Military Sales
	USS GARY (FFG 51)	Foreign Military Sales
	USS FORD (FFG 54)	Foreign Military Sales
	USS ELROD (FFG 55)	Foreign Military Sales
11 ships	USS SIMPSON (FFG 56)	Foreign Military Sales
	USSVANDEGRIFT (FFG 48)	Foreign Military Sales
	USS SAMUEL B ROBERTS (FFG 58)	Foreign Military Sales
	USS LA JOLLA (SSN 701)	MTS Conversion
	USS CITY OF CORPUS CHRISTI (SSN 705)	Dismantle
2016	USS ALBUQUERQUE (SSN 706)	Dismantle
3 ships	USS HOUSTON (SSN 713)	Dismantle
	USS PONCE (AFSB 1)	OCIR
2017	USNS HENRY J KAISER (T-AO 187)	Dismantle
	USNS JOSHUA HUMPHREYS (T-AO 188)	Dismantle
	USS KAUFFMAN (FFG 59)	Foreign Military Sales
	USS RODNEY M DAVIS (FFG 60)	Foreign Military Sales
	USS NORFOLK (SSN 714)	Dismantle
9 ships	USS BREMERTON (SSN 698)	Dismantle
	USS JACKSONVILLE (SSN 699)	Dismantle
	USS SAN FRANCISCO (SSN 711)	MTS Conversion
	USS BUFFALO (SSN 715)	Dismantle

Note:
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 removed from active status.
2. OCIR – Out of Commission, In Reserve

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 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 the Environmental Protection Agency directives of 1996 and 1999.

The Navy intends to dismantle the ships listed in Table A1-2 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 A1-2. Ships Planned for Disposal by Dismantling

Ex-SHASTA (T-AE 33)	Ex-CONSTELLATION (CV 64)
Ex-DULUTH (LPD 6)	Ex-INDEPENDENCE (CV 62)
Ex-THOMAS S GATES (CG 51)	Ex-FORRESTAL (AVT 59)
Ex-YORKTOWN (CG 48)	Ex-ROBIN (MHC 54)
Ex-JARRETT (FFG 33)	Ex-DOYLE (FFG 39)
Ex-HAWES (FFG 53)	Ex-SHREVEPORT (LPD 12)
Ex-OGDEN (LPD 5)	USNS FLINT (T-AE 32)

Table A1-3 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 has issued new guidelines for the conduct of SINKEXs, which 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.

With SINKEXs limited to these CNO-approved requirements, the number of future events will be reduced. Navy anticipates the number of events to drop from an average of five to six per year since 2005 to an average of one to two per year, and in some years the number will fall to

zero. 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 A1-3. Ships Planned for Disposal by Sinking

Ex-CORONADO (AGF 11)
Ex-NIAGARA FALLS (T-AFS 3)
Ex-CONCORD (T-AFS 5)
Ex-KILAUEA (T-AE 26)

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 in January 2012. As a result of this review, the Navy plans to retire 48 ships during the FYDP, with dispositions for retention in the inactive fleet, foreign military sales, interagency transfers, donations for public displays, or dismantling. The Navy plans to dispose of 18 inactive ships for which it has no further use—14 by dismantlement and four during SINKEXs.

Appendix 2

Changes between the PB2012 and PB2013 Long-Range Naval Construction Plan

Department of the Navy shipbuilding plans are based on three central principals: (1) maintain required battle force capability to meet the national defense strategy; (2) balance needs against expected resources; and (3) maintain an adequate shipbuilding industrial base. In this regard, there are two major differences between the PB2013 and PB2012 Long-Range Naval Construction Plans. First, the FY2013-FY2017 Future Years Defense Program (FYDP) found in the PB2013 Plan reflects the budgetary constraints associated with the 2011 Budget Control Act. Second, the PB2013 Plan's long-range projections focus first on battle force inventory requirements, and then outline the resources necessary to build to and maintain those requirements.

As a result of these differences, the number of ships to be procured between FY2013 and FY2017 in the PB2013 Plan are smaller than the numbers found in the PB2012 plan, while the projected number of ships to be procured over the following 25-year period is higher in the PB2013 Plan than found in the PB2012 plan.

Specifically, compared to the PB2012 Plan, the PB2013 Plan:

- Maintains procurement of the nuclear-powered aircraft carrier JOHN F. KENNEDY (CVN 79) in FY2013, and preserves a five-year procurement center between construction starts for GERALD R. FORD (CVN 78, 2008) and the as yet unnamed CVN 80 in FY2018. CVN 79 will capture the lessons learned from the construction of CVN 78, and be delivered in time to replace the USS NIMITZ in FY2023.
- Continues to fully fund the research and development of the OHIO-Replacement Program while delaying the start of the lead ship two years, from FY2019 to FY2021. The lead ship procurement of OHIO-Replacement must commence in FY2021 to ensure the first OHIO-Replacement can be on strategic patrol by FY2031.
- Increases BMD-capable ship inventories at a slower rate than the PB2012 Plan, reaching 35 BMD ships in FY2017 vice 41 in FY2016. However, both of the FY2017 DDGs will be Flight III variants with the new Air and Missile Defense Radar (AMDR), with greatly improved sensitivity and longer range detection and engagement of increasingly complex threats. The DDG 51 Multiyear Procurement (MYP) proposed for FY2013 to FY2017 will procure six DDG 51 Flight IIA ships and three DDG 51 Flight III ships.
- Continues to invest in the Littoral Combat Ship (LCS) to increase capabilities and capacities that reflect the many conventional challenges and also the irregular nature of current conflicts. The PB2013 plan has two fewer LCSs than the PB2012 plan, with one less planned ship in FY2016 and FY2017. These cuts were made to achieve 2011 BCA spending reduction targets.
- Slips procurement of an Amphibious Assault Ship (LHA-8) from FY2016 to FY2017. Additionally, the plan delays decommissioning of an Amphibious Assault Ship (LHA-5) from FY2014 to FY2015 to maintain large deck amphibious ships in the inventory pending LHA 6 delivery to the Fleet.

- Slips the start of the LSD(X) from FY2017 to FY2018, but then accelerates LSD(X) procurement in the mid-term planning period to maintain a long-term active inventory of 32 or more amphibious landing ships. The DoN remains committed to maintaining a force capable of executing a two-Marine Expeditionary Brigade forcible entry operation.

- Delays the initiation of the Fleet Oiler (T-AO(X)) and procures 2 less ships in the FYDP by shifting the lead ship procurement from FY2014 to FY2016. Due to budget constraints T-AO(X) procurements in FY2015 and FY2017 have been delayed outside the FYDP.

- Adds a fourth Mobile Landing Platform (MLP) in FY2014, modified to an Afloat Forward Staging Base (AFSB) configuration. The plan also converts the FY2012 MLP into an AFSB configuration. This 2+2 force of seabasing ships supports the two active Maritime Prepositioning squadrons called for in the new strategic guidance.

- Cancels the procurement of a sixth T-AGOS ship. Analysis shows that 5 T-AGOS ships are sufficient to maintain 4 operationally available ships, with some increased risk.

- Truncates the procurement of Joint High Speed Vessels (JHSV) to maintain a force of 10 ships, judged to be sufficient to support the new strategic guidance.