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Navy Ship Procurement: Alternative Funding Approaches — Background and Options for Congress

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Summary

Some observers have proposed procuring Navy ships using incremental funding or advance appropriations rather than the traditional full funding approach that has been used to procure most Navy ships. Supporters believe these alternative funding approaches could increase stability in Navy shipbuilding plans and perhaps increase the number of Navy ships that could be built for a given total amount of ship-procurement funding. The issue for the 109th Congress is whether to maintain or change current practices for funding Navy ship procurement. Congress' decision could be significant because the full funding policy relates to Congress' power of the purse and its responsibility for conducting oversight of defense programs.

For Department of Defense (DOD) procurement programs, the full funding policy requires the entire procurement cost of a usable end item (such as a Navy ship) to be funded in the year in which the item is procured. Congress imposed the full funding policy on DOD in the 1950s to strengthen discipline in DOD budgeting and improve Congress' ability to control DOD spending and carry out its oversight of DOD activities.

Under incremental funding, a weapon's cost is divided into two or more annual increments that Congress approves separately each year. Supporters could argue that using it could avoid or mitigate budget spikes associated with procuring very expensive ships such as aircraft carriers or "big-deck" amphibious assault ships. Opponents could argue that using it could make total ship procurement costs less visible and permit one Congress to budgetarily "tie the hands" of future Congresses.

Under advance appropriations, Congress makes a one-time decision to fund the entire procurement cost of an end item. That cost can then be divided into two or more annual increments that are assigned to (in budget terminology, "scored in") two or more fiscal years. Supporters could argue that using advance appropriations could avoid or mitigate budget spikes without some of the potential disadvantages of incremental funding. Opponents could argue that advance appropriations retains (or even expands) a key potential disadvantage of incremental finding — that of tying the hands of future Congresses.

Although budget spikes associated with fully funding very expensive ships can contribute to instability in Navy ship-procurement planning, a more fundamental cause of this instability may be the absence of a current, officially approved, consensus plan for the future size and structure of the Navy. Using incremental funding or advance appropriations could, under certain circumstances, marginally reduce the cost of Navy ships. Under certain other circumstances, however, it could increase costs. Options for Congress include maintaining current ship-procurement funding practices; strengthening adherence to the full funding policy; increasing the use of incremental funding; beginning to use advance appropriations; and transferring lead-ship detailed design and nonrecurring engineering costs to the research and development account. Arguments could be made in support of or against each of these options. This report will be updated as events warrant.

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Navy Ship Procurement: Alternative Funding Approaches — Background and Options for Congress

Introduction and Issue for Congress

Some observers, including the Chief of Naval Operations and shipbuilding industry officials, have recently proposed procuring Navy ships using funding approaches other than the traditional full funding approach that has been used to procure most Navy ships since the 1950s.¹ These alternative funding approaches include incremental funding, which has been used to fund a few Navy ships in recent years, and advance appropriations, which has not been used for Navy ship procurement. Supporters of these alternative funding approaches believe they could increase stability in Navy shipbuilding plans and perhaps increase the number of Navy ships that could be built for a given total amount of ship-procurement funding.

The issue for the 109th Congress is whether to maintain current practices for funding Navy ship procurement or change them by, for example, increasing the use of incremental funding or starting to use advance appropriations. Congress' decision on this issue could be significant because the full funding policy relates to Congress' power of the purse and its responsibility for conducting oversight of Department of Defense (DOD) programs. Consequently, the issue can be alternately expressed as how to procure Navy ships economically while maintaining key congressional prerogatives. Congress' decision on ship funding approaches could also affect future Navy capabilities, annual Navy funding requirements, and the shipbuilding industrial base.

¹ For the Chief of Naval Operations, see Statement of Admiral Vernon Clark, USN, Chief of Naval Operations, Before The Senate Armed Services Committee, February 10, 2005, page 20, and Admiral Clark's spoken testimony at both this hearing and a February 17, 2005 hearing before the House Armed Services Committee. See also Andrew Scutro, "Clark Seeks Hearings on Shipbuilding Process," *NavyTimes.com*, February 18, 2005; Dave Ahearn, "Clark Urges Ships Funding Reforms, but Defends Shipbuilding Cuts," *Defense Today*, February 18, 2005; and Geoff Fein, "Federal Acquisition Regulations Should Be Examined, CNO Says," *Defense Daily*, February 18, 2005.

For industry officials, see Dave Ahearn, "Northrop Chief Says Payment Due for Aircraft Carrier Delay," *Defense Today*, February 16, 2005; Nathan Hodge, "Despite Setbacks, Northrop Grumman Chief Confident on Missile Defense, Budget," February 16, 2005; William Matthews, "Northrop Pitches Novel Ship Financing, Again," *Defense News*, December 6, 2004: 24; Christopher P. Cavas, "Northrop Chief Urges Spreading Ship Payments," *Defense News*, November 22, 2004; Christopher J. Castelli, "Shipbuilder Northrop Pitches Financing Strategy for Ships to Navy," *Inside the Navy*, November 1, 2004: 1.

The following section of this report provides background information on the full funding policy, incremental funding, and advance appropriations. The section that follows presents options for Congress that arise out of these three funding approaches. Portions of this report are adapted from another CRS report that discusses the full funding policy in DOD procurement generally.²

Background

Full Funding Policy

General Description. Most (but not all) Navy ships procured since the late 1950s have been funded in accordance with the full funding policy. Before then, many Navy ships were procured with incremental funding, which is discussed in the next section.

For DOD procurement programs, the full funding policy requires the entire procurement cost of a usable end item (such as a Navy ship) to be funded in the year in which the item is procured. The policy applies not just to Navy ships, but to all weapons and equipment that DOD procures through the procurement title of the annual DOD appropriations act.

In general, the full funding policy means that DOD cannot contract for the construction of a new weapon or piece of equipment until funding for the entire cost of that item has been approved by Congress. Sufficient funding must be available for a complete, usable end item before a contract can be let for the construction of that item. Under traditional full funding, no portion of a usable end item's procurement cost is funded in a year after the year in which the item is procured.

Congress imposed the full funding policy on DOD in the 1950s to make the total procurement costs of DOD weapons and equipment more visible and thereby enhance Congress' ability to understand and track these costs. Congress' intent in imposing the policy was to strengthen discipline in DOD budgeting and improve Congress' ability to control DOD spending and carry out its oversight of DOD activities. Understanding total costs and how previously appropriated funds are used are key components of Congress' oversight capability.

The full funding policy is consistent with two basic laws regarding government expenditures — the Antideficiency Act of 1870, as amended, and the Adequacy of Appropriations Act of 1861. Regulations governing the full funding policy are found in Office of Management and Budget (OMB) Circular A-11 and DOD Directive 7000.14-R, which provide guidelines on budget formulation. OMB Circular A-11 states, among other things, that

Good budgeting requires that appropriations for the full costs of asset acquisition be enacted in advance to help ensure that all costs and benefits are fully taken

² CRS Report RL31404, *Defense Procurement: Full Funding Policy — Background, Issues, and Options for Congress*, by Ronald O'Rourke and Stephen Daggett.

into account at the time decisions are made to provide resources. Full funding with regular appropriations in the budget year also leads to tradeoffs within the budget year with spending for other capital assets and with spending for purposes other than capital assets. Full funding increases the opportunity to use performance-based fixed price contracts, allows for more efficient work planning and management of the capital project (or investment), and increases the accountability for the achievement of the baseline goals.

When full funding is not followed and capital projects (or investments) or useful segments are funded in increments, without certainty if or when future funding will be available, the result is sometimes poor planning, acquisition of assets not fully justified, higher acquisition costs, cancellation of major investments, the loss of sunk costs, or inadequate funding to maintain and operate the assets.³

Support for the full funding policy has been periodically reaffirmed over the years by Congress, the Government Accountability Office (GAO), and DOD.⁴

Advance Procurement (AP) Payments Under Full Funding. The executive branch regulations that implement the full funding policy for DOD procurement programs permit two circumstances under which advance procurement (AP) “down payments” on a usable end item can be provided in one or more years prior to the item’s year of procurement.⁵

- AP funding may be used to pay for “long-lead items” — components of a usable end item that have long manufacturing lead times — if needed to ensure that these items will be ready for installation into the end item at the appropriate point in the end item’s construction process.
- AP funding may also be used to pay for “economic order quantity” (EOQ) procurement of a set of long-lead items for a set of weapons being acquired under a multiyear procurement (MYP) arrangement.

Each of these is discussed below.

AP Payments For Long-Lead Items. Long-lead items are often manufactured not at the end item’s final assembly facility (such as a shipyard) but at separate supplier firms. In Navy shipbuilding, AP payments have most commonly been used to pay for nuclear-propulsion components of nuclear-powered aircraft carriers and submarines.

³ OMB Circular A-11 (July 2003), Appendix J, Section C, Principle 1 (of four principles for financing capital assets).

⁴ For a detailed discussion of the origins, rationale, and governing regulations of the full funding policy, as well as examples of where Congress, GAO, and DOD have affirmed their support for the policy, see Appendix A of CRS Report RL31404, *op cit*.

⁵ Note that the funding discussed here is advance *procurement* funding, which is not to be confused with the alternate funding approach called advance *appropriations*, discussed later.

Congress in recent years has occasionally approved AP funding for conventionally powered Navy ships, such as destroyers and amphibious ships, for which the Navy did not request any AP funding for long-lead items. Congress in recent years has also occasionally approved AP funding for “advance construction” work on certain ships, which apparently refers to early shipyard activities for building the basic structure of a ship, as opposed to manufacturing long-lead components to be installed into the ship. The use of AP funding for shipyard advance construction activities is not recognized in executive branch budget regulations on the full funding policy, at least not in the same way as these regulations recognize the use of AP funding for long-lead components.

Congressional decisions to approve AP funding for ships for which the Navy did not request such funding, or for shipyard advance construction activities, could be aimed at one or more of the following goals:

- generating shipyard construction work (and thus shipyard revenues and jobs) on a particular ship in a year prior to that ship’s year of procurement;
- creating an early financial commitment to procuring a ship that is planned for procurement in a future year, which can enhance job security for construction workers at the yard that would build the ship;
- reducing the total construction cost of a ship through improved sequencing or year-to-year balancing of shipyard construction work; and
- reducing the portion of a ship’s cost to be funded in the year of procurement.

AP Payments for EOQ under Multiyear Procurement. Most DOD procurement programs use annual contracting, under which DOD lets one or more contracts for each year’s worth of procurement of a given item. Multiyear procurement is a special contracting authority, approved by Congress on a program-by-program basis, that permits DOD to use a single contract to procure a set of end items that are scheduled to be procured across a series of up to five fiscal years (i.e., the budget year in question, plus up to four future years). An MYP arrangement approved for the Navy’s F/A-18E/F strike-fighter program, for example, permitted the Navy to procure, under a single contract, a total of 198 to 224 F/A-18E/Fs during the five-year period FY2000-FY2004. Congress over the years has granted MYP authority for a relatively small number of procurement programs.

The law governing MYP arrangements is set forth in 10 U.S.C. § 2306b. This provision permits AP funding to be used to finance, at the outset of an MYP arrangement, the procurement of long-lead components for all of the end items to be procured under the MYP arrangement. The MYP arrangement to procure a total of five Virginia (SSN-774) class nuclear-powered attack submarines over the five-year period FY2004-FY2008, for example permits the Navy to procure, in the first years of the arrangement, five sets of long-lead nuclear-propulsion components. This up-

front procurement of long-lead items is called an “economic order quantity” (EOQ) because it procures (i.e., places an order for) these items in the form of a group that can be manufactured in an efficient (i.e., economic) manner.⁶

“One Decision for One Pot of Money”. When Congress approves AP funding for an item, it does so through a funding decision for that year that is separate from the decision that Congress subsequently makes, in the item’s year of procurement, to fund the remainder of the item’s procurement cost. Items procured with AP funding thus involve two or more funding decisions from Congress — one or more decisions to approve AP funding in one or more years prior to the year of procurement, plus a final decision, in the item’s year of procurement, to fund the remainder of the item’s procurement cost. A decision by Congress to approve AP funding for an item does not create an obligation on the part of Congress to approve the remainder of the item’s procurement cost in some future year, but it usually indicates that Congress anticipates doing so.

Although some DOD weapons and equipment are procured with AP funding, most DOD procurement items are funded through a single decision by Congress to provide the entire cost of the item in the item’s year of procurement. For this reason, the full funding policy for DOD procurement programs can be described in simplified terms as “one decision for one pot of money.”

Incremental Funding

General Description. In spite of the existence of the full funding policy, a few Navy and DOD ships have been procured in recent years (or are currently being procured) with incremental funding. Examples include DOD sealift ships, the attack submarine SSN-23, the amphibious assault ships LHD-6 and LHD-8, and the aircraft carrier CVN-21. The DOD sealift ships were procured through the National Defense Sealift Fund (NDSF), a DOD revolving and management fund that is outside the procurement title of the DOD appropriations act and therefore not subject to the full funding policy in the same way as DOD procurement programs funded through the procurement title. LHD-8 is currently being incrementally funded by explicit legislative direction. SSN-23, LHD-6 and CVN-21 amount to cases of *de facto* incremental funding. (For detailed discussions of the funding of these ships, see Appendix A of this report.) These ships constitute recent exceptions to the use of full funding in the procurement of Navy ships. Prior to the imposition of the full funding policy in the 1950s, however, much of DOD weapon procurement was accomplished through incremental funding.

Under incremental funding, a weapon’s cost is divided into two or more annual portions, or increments, that can reflect the need to make annual progress payments

⁶ 10 USC 2306b(i)(4)(B) states: “The Secretary of Defense may obligate funds appropriated for any fiscal year for advance procurement under a contract for the purchase of property only for the procurement of those long-lead items necessary in order to meet a planned delivery schedule for complete major end items that are programmed under the contract to be acquired with funds appropriated for a subsequent fiscal year (including an economic order quantity of such long-lead items when authorized by law).”

to the contractor as the weapon is built. Congress then approves each year's increment as part of its action on that year's budget. Under incremental funding, DOD can contract for the construction of a weapon after Congress approves only the initial increment of its cost, and completion of the weapon is dependent on the approval of the remaining increments in future years by that Congress or future Congresses. A key feature of incremental funding is that a portion of the ship's cost is provided in one or more years beyond the item's year of procurement.

One form of incremental funding, called split funding, involves dividing a weapon's procurement cost into two portions, one of which is funded in the item's year of procurement, the other the following year. Split funding, in other words, is a two-year form of incremental funding.

Advantages and Disadvantages.

Potential Advantages. Supporters of incremental funding could argue that, compared to full funding, using incremental funding in DOD procurement can be advantageous because it can do one or more of the following:

- permit very expensive items, such as large Navy ships, to be procured in a given year while avoiding or mitigating budget "spikes" (i.e., lumps) that could require displacing other programs from that year's budget, which can increase the costs of the displaced programs due to uneconomic program-disruption start-up and start costs;
- avoid a potential bias against the procurement of very expensive items that might result from use of full funding due to the item's large up-front procurement cost (which appears in the budget) overshadowing the item's long-term benefits (which do not appear in the budget) or its lower life cycle operation and support (O&S) costs compared to alternatives with lower up-front procurement costs;
- permit construction to start on a larger number of items in a given year within that year's amount of funding, so as to achieve better production economies of that item than would have been possible under full funding;
- recognize that certain DOD procurement programs, particularly those incorporating significant amounts of advanced technology, bear some resemblance to research and development activities (which can be funded in increments), even though they are intended to produce usable end items;

- reduce the amount of unobligated balances associated with DOD procurement programs;⁷
- implicitly recognize potential limits on DOD’s ability to accurately predict the total procurement cost of items, such as ships, that take several years to build; and
- preserve flexibility for future Congresses to stop “throwing good money after bad” by halting funding for the procurement of an item under construction that has become unnecessary or inappropriate due to unanticipated shifts in U.S. strategy or the international security environment.

Potential Disadvantages. In spite of its potential advantages, Congress replaced incremental funding with the full funding policy in the 1950s, and has periodically reaffirmed the full funding policy since then, on the grounds that incremental funding did (or could do) one or more of the following:

- make the total procurement costs of weapons and equipment less visible to Congress and more difficult for Congress to understand and track;
- permit one Congress to “tie the hands” of one or more future Congresses — a kind of action that Congress traditionally tries to avoid — by providing initial procurement funding for a weapon whose cost would have to be largely funded by one or more future Congresses;
- create a potential for DOD to start procurement of an item without necessarily understanding its total cost, stating that total cost to Congress, or providing fully for that total cost in future DOD budgets — the so-called “camel’s-nose-under-the-tent” issue; and
- increase weapon procurement costs by exposing weapons under construction to potential uneconomic start-up and stop costs that can occur when budget reductions or other unexpected developments cause one or more of the planned increments to be reduced or deferred.

Navy Proposal for Funding Lead Ships. As part of its proposed FY2005 budget and FY2005-FY2009 Future Years Defense Plan (FYDP), the Navy in 2004 proposed funding the procurement of the lead DD(X) destroyer and the lead Littoral Combat Ship (LCS) program in the Navy’s research and development (R&D) account rather than the Navy’s ship-procurement account, which is known formally as the Shipbuilding and Conversion, Navy (SCN) account. Funding the procurement

⁷ For an explanation and discussion of unobligated balances, see CRS Report RL30002, *A Defense Budget Primer*, by Mary T. Tyszkiewicz and Stephen Daggett.

of lead ships through the R&D account would permit them to be incrementally funded without violating the full funding policy.

Congress, in acting on the Navy's proposed FY2005 defense budget, rejected the Navy's proposal to procure the lead DD(X) through the Navy's research and development account, directed the Navy to fully fund the lead DD(X) in the Navy's ship-procurement account, and fully funded the lead LCS in the Navy's research and development account. For excerpts from committee and conference report language, see Appendix B.

Although Congress in 2004 rejected the Navy's proposal to incrementally fund the lead DD(X) and lead LCS, Navy officials testifying in early 2005 in support of the Navy's proposed FY2006 defense budget and FY2006-FY2011 FYDP have again expressed support for the concept of funding the procurement of lead ships in the R&D account, which would permit them to be funded incrementally.

“Multiple Decisions for Multiple Pots of Money”. Since incremental funding divides the procurement cost of an end item into two or more annual increments, and since Congress typically approves one of these increments each year, incremental funding can be described in simplified terms as “multiple decisions for multiple pots of money.”

Advance Appropriations

General Description. Advance appropriations have not been used in Navy ship procurement, but have been used by other executive branch agencies to fund various programs.⁸

Advance appropriations is an alternate form of full funding that is permitted under executive branch budget regulations. As a funding approach, it can be viewed as lying somewhere between traditional full funding and incremental funding.⁹ Under advance appropriations, as under traditional full funding, Congress makes a one-time decision to fund the entire procurement cost of an end item. That cost, however, can then be divided into two or more annual increments, as under incremental funding, that are assigned to (in budget terminology, “scored in”) two or more fiscal years.¹⁰

⁸ Use of advance appropriations in the federal budget is summarized in the appendix volume of each year's U.S. government budget. For the FY2006 version, see U.S. Executive Office of the President. Office of Management and Budget. *Appendix [to the] Fiscal Year 2006 Budget of the U.S. Government*. Washington, U.S. Govt. Print. Off., 2005, p. 1241-1242.

⁹ As discussed in an earlier footnote, advance appropriations is not to be confused with advance *procurement* (AP) funding that can occur under traditional full funding.

¹⁰ Advance appropriations can also be used to fund the entire cost of an item and have that entire cost assigned to a single future fiscal year.

OMB Circular A-11 defines advance appropriations as appropriations that are:

- Enacted normally in the current year;
 - Scored after the budget year (e.g., in each of one, two, or more later years,
- (continued...)

In contrast to incremental funding, under which Congress must take a positive action each year to approve each year's funding increment, under advance appropriations, Congress, following its initial decision to fund the item, would need to take a positive action to cancel or modify an annual funding increment in a future-year budget. In this sense, advance appropriations can be thought of as a legislatively locked in form of incremental funding: the future-year funding increments will occur unless Congress takes action to stop them.

OMB Circular A-11 allows for the use of advance appropriations to help finance capital assets under certain circumstances:

Regular appropriations for the full funding of a capital project or a useful segment (or investment) of a capital project in the budget year are preferred. If this results in spikes that, in the judgment of OMB, cannot be accommodated by the agency or the Congress, a combination of regular and advance appropriations that together provide full funding for a capital project or a useful segment or an investment should be proposed in the budget.

Explanation: Principle 1 (Full Funding) is met as long as a combination of regular and advance appropriations provide budget authority sufficient to complete the capital project or useful segment or investment. Full funding in the budget year with regular appropriations alone is preferred because it leads to tradeoffs within the budget year with spending for other capital assets and with spending for purposes other than capital assets. In contrast, full funding for a capital project (investment) over several years with regular appropriations for the first year and advance appropriations for subsequent years may bias tradeoffs in the budget year in favor of the proposed asset because with advance appropriations the full cost of the asset is not included in the budget year. Advance appropriations, because they are scored in the year they become available for obligation, may constrain the budget authority and outlays available for regular appropriations of that year.

If, however, the lumpiness caused by regular appropriations cannot be accommodated within an agency or Appropriations Subcommittee, advance appropriations can ameliorate that problem while still providing that all of the budget authority is enacted in advance for the capital project (investment) or useful segment. The latter helps ensure that agencies develop appropriate plans and budgets and that all costs and benefits are identified prior to providing resources. In addition, amounts of advance appropriations can be matched to funding requirements for completing natural components of the useful segment. Advance appropriations have the same benefits as regular appropriations for

¹⁰ (...continued)

depending on the language); and

- Available for obligation in the year scored and subsequent years if specified in the language.

(OMB Circular A-11 (July 2003 version), Appendix J (Principles of Budgeting for Capital Asset Acquisitions), Section E (Glossary).)

improved planning, management, and accountability of the project (investment).¹¹

Advantages and Disadvantages. Supporters of advance appropriations could argue that it offers many of the potential advantages of incremental funding outlined earlier — including avoiding or mitigating budget spikes — while avoiding some of its potential disadvantages, such as the risk of increasing weapon procurement costs created by uneconomic start-up and stop costs that can occur when budget reductions or other unexpected developments cause planned increments to be reduced or deferred.

Opponents of advance appropriations could argue that it retains (or even expands) one of the key potential disadvantages of incremental finding — that of tying the hands of future Congresses — by committing a portion of one or more future-year budgets to the financing of an item procured in a prior year and requiring a positive action from future Congresses to undo those commitments. Opponents could also argue that compared to full funding, advance appropriations under certain circumstances could increase ship-construction costs by causing work on a ship to stop and then be restarted. Specifically, they could argue, if a given increment of construction work on the ship is completed before the end of a fiscal year and that year’s funding increment is entirely expended, the Navy might have to halt work on the ship and wait until the start of the next fiscal year to access the next increment of funding and resume work. Under full funding, in contrast, the Navy would have access to funding for the ship’s entire construction cost and consequently would not have to halt work until the start of the next fiscal year, avoiding the additional costs of halting and then resuming work.

Navy Advocacy in 2001. In 2001, some Navy officials advocated the use of advance appropriations for Navy ship procurement, noting at that time that this funding approach is used by several federal agencies other than DOD.¹²

¹¹ OMB Circular A-11 (July 2003), Appendix J, Section C, Principle 2 (of four principles for financing capital assets). Italics as in the original.

¹² Source: Slides for May 3, 2001 Navy briefing to CRS, *Advance Appropriations for Navy Shipbuilding*, pages 19-21. The Navy also argued that current law, contrary to some assertions, does not prohibit the use of advance appropriations. Specifically, the Navy argued that:

- 31 USC 1341, [the] “Anti-Deficiency Act,” prohibits writing a contract which “involves the government in a contract or obligation for the payment of money before an appropriation is made *unless authorized by law.*”
- 10 USC 2306b [the provision covering multi-year procurement contracts] allows [DOD and certain other federal agencies] to enter into multi-year contracts for the purchase of weapon systems, as long as [there is] “a reasonable expectation that throughout the contemplated contract period the head of the agency will request funding for the contract at the level required to avoid contract cancellation.”
- 31 USC 1105 [a provision relating to the contents of the federal budget and its submission to Congress] requires that [the executive branch]

(continued...)

Although use of advance appropriations for Navy ship procurement was supported by some Navy officials and some Members of Congress,¹³ the Navy in 2001 apparently did not receive approval from the Office of Management and Budget (OMB) to use the approach for ship procurement, and did not officially propose its use as part of its FY2002 budget submission to Congress.¹⁴ Congress in 2001 did not adopt advance appropriations as a mechanism for funding Navy ships. The House Appropriations Committee, in its report (H.Rept. 107-298 of November 19, 2001) on the FY2002 defense appropriations bill (H.R. 3338), stated that it was

dismayed that the Navy continues to advocate the use of alternative financing mechanisms to artificially increase shipbuilding rates, such as advanced appropriations, or incremental funding of ships, which only serve to decrease cost visibility and accountability on these important programs. In attempting to establish advanced appropriations as a legitimate budgeting technique, those Navy advocates of such practices would actually decrease the flexibility of future Administrations and Congresses to make rational capital budgeting decisions with regard to shipbuilding programs. Accordingly, the Committee bill includes a new general provision (section 8150) which prohibits the Defense Department from budgeting for shipbuilding programs on the basis of advanced appropriations.¹⁵

The general provision mentioned above (Section 8150) was not included in the final version of the bill that was passed by Congress and signed into law (H.R. 3338/P.L. 107-117 of January 10, 2002).

“One Decision For Multiple Pots of Money”. Because advance appropriations involves a one-time decision by Congress to approve the entire procurement cost of the end item, which can then be divided into two or more increments that are assigned to two or more fiscal years, advance appropriations can be described in simplified terms as “one decision for multiple pots of money.”

¹² (...continued)

identify in advance of need future appropriations that will have to be approved in order to complete the contract. These advance appropriations have to be specifically approved by Congress to allow [the executive branch] to obligate the government in advance of receipt of funds.

(Slides for May 3, 2001 Navy briefing to CRS, *Advance Appropriations for Navy Shipbuilding*, page 16. Emphasis as on the briefing slide.)

¹³ Christian Bohmfalk, “O’Keefe: Advance Appropriations, If Used Correctly, Could Help Navy,” *Inside the Navy*, Nov. 26, 2001; Christian Bohmfalk, “Stevens Promotes Advance Appropriations To Boost Ship Production,” *Inside the Navy*, Sept. 10, 2001; Mike McCarthy, “CNO Advocates Advance Funding of Ships,” *Defense Week*, July 16, 2001, p. 2; Christian Bohmfalk, “Senior Navy Leaders Describe Benefits of Advance Appropriations,” *Inside the Navy*, Apr. 16, 2001; Christopher J. Castelli, “Congress Weighs Using ‘Advance Appropriations’ For Shipbuilding,” *Inside the Navy*, Apr. 9, 2001; Dale Eisman, “Plan Would Boost Navy Shipbuilding,” *Norfolk Virginian-Pilot*, Apr. 5, 2001.

¹⁴ Dale Eisman, “White House Rejects Proposal To Stretch Shipbuilding Funds,” *Norfolk Virginian-Pilot*, Sept. 6, 2001; Christian Bohmfalk, “Advance Appropriations, Not Part of FY-02 Request, May Resurface,” *Inside the Navy*, July 16, 2001.

¹⁵ H.Rept. 107-298, p. 119.

Potential for Reducing Instability in Ship-Procurement Plans

Could using incremental funding or advance appropriations reduce instability in Navy ship-procurement plans?

Using incremental funding or advance appropriations could help reduce instability in Navy ship-procurement plans by avoiding or mitigating budget spikes that can occur when traditional full funding is used to procure ships that are very expensive and are procured once every few years. The ships that best fit this description are aircraft carriers and “big-deck” amphibious assault ships.¹⁶ Accommodating budget spikes for such ships within an overall ship-procurement or Department of the Navy budget for a given fiscal year can require the Navy to move to other fiscal years other ships that the Navy would have preferred to procure in the spike year, or, conversely, require the Navy to move the carrier or amphibious assault ship from a preferred year of procurement to a less-preferred year that happens to have fewer other Navy ships in it. Such movements of planned ship procurements can be a source of instability in Navy ship-procurement planning.

The FY2006-FY2011 Navy ship-procurement plan submitted to Congress in February 2005 contains at least two potential examples of such ship movements:

- The Navy, as part of its proposed FY2005 budget and FY2005-FY2009 FYDP submitted to Congress in February 2004, had proposed funding the lead DD(X) destroyer through the Navy’s research and development account, which would have permitted the ship to be funded through a stream of incremental payments during the seven-year period FY2005-FY2011. Congress, in acting on the FY2005 budget request, directed the Navy to instead procure the lead DD(X) through the Navy’s ship-procurement account and to use full funding. In testifying on the Navy’s proposed FY2006 budget and FY2006-FY2011 FYDP, Navy officials have stated that due to an inability to fully fund the lead DD(X) in FY2006 while still meeting other FY2006 spending needs, the Navy decided in its FY2006-FY2011 budget submission to fund DD(X) in FY2007.
- The Navy, as part of its proposed FY2005 budget and FY2005-FY2009 FYDP, had planned to procure its next aircraft carrier, called CVN-21, in FY2007. Doing so, however, apparently would have caused the Navy to displace one or more other ships from FY2007 to a later year. Rather than doing this, the Navy decided in its FY2006-FY2011 budget submission to defer the procurement of CVN-21 by a year, to FY2008, which apparently can better accommodate CVN-21 in budgetary terms but which, from a

¹⁶ “Big-deck” amphibious assault ships, which carry the designations LHA or LHD, are large amphibious ships that are designed to embark and operate a total of about two dozen Marine Corps helicopters and VSTOL (vertical-short takeoff and landing) airplanes. They have a flight deck that runs the entire length of the ship and consequently look like medium-sized aircraft carriers.

production standpoint, may be a less-preferred year to procure CVN-21 than FY2007 because it lengthens an already-substantial gap in the aircraft carrier production line between CVN-21 and the previous carrier, CVN-77, which was procured in FY2001.

Although use of full funding can contribute to instability in Navy ship-procurement plans by causing budget spikes that lead to the movement of planned ship procurements from one year to another, a more fundamental cause of instability in Navy ship-procurement programs in recent years may be the absence of a current, officially approved, consensus plan for the future size and structure of the Navy. This in turn may reflect evolution and uncertainty in Navy and DOD thinking about desired Navy capabilities and the metrics for translating those desired capabilities into required types and numbers of ships.¹⁷ If so, then the primary means for improving stability in Navy ship-procurement programs would be to encourage the Navy and DOD to better define their thinking regarding desired Navy capabilities and the metrics for translating those desired capabilities into ship requirements.

Potential for Increasing Number of Ships Procured

Could using incremental funding or advance appropriations increase the number of Navy ships that can be built for a given total amount of ship-procurement funding?

Using incremental funding or advance appropriations could marginally increase the number of ships that could be built for a given total amount of ship-procurement funding (or, conversely, marginally reduce the total cost to procure a given number of ships). By avoiding instances in which budget spikes caused ships to be moved from one year to another in ship-procurement plans, using incremental funding or advance appropriations can avoid perturbations in the production schedules for these ships. Such perturbations can increase the cost of a ship, reducing at the margin the total number of ships that can be procured for a given total amount of ship-procurement funding.

In addition, if a situation arises in which annual funding for ship procurement limits ship-procurement in the near term to low rates with poor production economies of scale, but is expected to rise in future years to levels that would be more than adequate to support higher, economic rates of ship procurement, then using incremental funding or advance appropriations could permit construction to begin on additional ships in the near term, improving near-term production economies of scale, while still permitting the Navy to procure ships in future years at economic rates of production. Improving near-term production economies of scale while preserving acceptable production economies of scale in later years might result in marginally higher average economies of scale for the entire period in question and thereby reduce, at the margin, the collective cost of all the ships procured in the near term and the later years.

¹⁷ For more discussion of this point, see CRS Report RL32665, *Potential Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, by Ronald O'Rourke.

This scenario, however, is dependent on realizing the expected increase in ship-procurement funding in the later years. If this increase is not realized, then using incremental funding or advance appropriations could simply trade poor production economies of scale in the near term for poor production economies of scale in future years. Put another way, it would simply trade an inability to afford something now for an inability to afford something later.

In discussing the potential effects of using incremental funding or advance appropriations, it is possible to construct presentations showing how a decision today to begin using incremental funding or advance appropriations can increase, perhaps dramatically, the number of ships on which construction can be started in the near term. This is simply because using incremental funding or advance appropriations would defer much of the procurement cost of the ships in question to future years. In those future years, the remainder of the cost of these ships would still have to be paid. As a result, other things held equal, the number of new ships that could be procured in those future years for a given amount of ship-procurement funding will be reduced because portions of those future-year budgets would now be needed to pay for the ships on which construction had started in prior years.

Presentations that show a dramatic near-term increase in the number of ships on which construction can begin by starting to use incremental funding or advance appropriations — if not tempered by cautions that it would also reduce the number of new ships that can be procured in future years for a given amount of shipbuilding funding — can mislead audiences into concluding that using incremental funding or advance appropriations can dramatically increase the total number of ships that can be procured over the long run for a given total amount of ship-procurement funding. Incremental funding or advance appropriations, by avoiding perturbations in ship production schedules or improving average production economies of scale over a period of several years, can marginally reduce ship-procurement costs and thereby marginally (rather than dramatically) increase the total number of ships that can be procured over the long run for a given amount of ship-procurement funding. The reduction in ship-procurement costs might be sufficient, for example, to increase from 20 to 21 the total number of ships that could be fully paid for with a certain total amount of funding.

Under certain other circumstances, using incremental funding or advance appropriations could increase rather than reduce ship-procurement costs. As discussed earlier, using incremental funding can increase the procurement cost of a ship if one or more of the ship's funding increments is reduced or deferred and the ship's production schedule is consequently disrupted. In addition, if budget circumstances require reducing the ship-procurement budget for a given year and some portion of that year's budget is already devoted to paying for ships started in prior years with incremental funding or advance appropriations, then preserving that portion of the budget so as to avoid disrupting the production schedule of those prior-year ships would mean that the budget reduction would fall more heavily on the remaining part of the ship-procurement budget. This could increase the chance that the reduction would lead to a decision to defer to a future year the procurement of a ship planned for that year, which could increase the procurement cost of that ship.

Lastly, if Congress decides to make more use of incremental funding or to start using advance appropriations, and then decides at a later point to return to a more exclusive reliance on full funding, it could temporarily reduce the number of new ships that could be procured because the full costs of new ships being procured and portions of the costs of ships started in prior years under incremental funding or advance appropriations would need to be funded at the same time.

Options for Congress

Options for Congress that arise out of proposals to make greater use of incremental funding or begin using advance appropriations for procuring Navy ships include (but are not limited to) the following:

- maintain current ship-procurement funding practices;
- strengthen adherence to the full funding policy in ship procurement;
- increase the use of incremental funding in ship procurement;
- begin using advance appropriations in ship procurement; and
- shift lead-ship detailed design/nonrecurring engineering (DD/NRE) costs to the Navy's research and development (R&D account).

Each of these is discussed below.

Maintain Current Funding Practices

Current ship-procurement funding practices can be summarized as procuring almost all ships with full funding, procuring a small number with *de facto* or explicit incremental funding, and approving, for some ships being fully funded, advance procurement (AP) funding that the Navy did not request, or for purposes of shipyard advance construction activities rather than long-lead components.

Supporters of this option could argue that current funding practices give DOD and the Congress the flexibility to use incremental funding on a limited basis for aircraft carriers and selected amphibious assault ships while not formally abandoning the full funding policy. They could similarly argue that current funding practices provide Congress with flexibility for using AP funding for purposes other than funding long-lead items requested by DOD. Such flexibility, they can argue, is important for meeting policy goals such as preserving the shipbuilding industrial base within available funding.

Opponents of this option could argue that current practices weaken adherence to the full funding policy by making even limited use of incremental funding and by using AP funding for purposes other than funding long-lead items requested by DOD. Such practices, they could argue, increase the chance that supporters of other kinds

of procurement items, such as aircraft, could seek to have them funded using incremental funding, and that such proposals have already been made.¹⁸

Strengthen Adherence to Full Funding Policy

This option would involve reducing or eliminating the use of incremental funding in Navy ship procurement and reducing or eliminating the use, in ships being fully funded, of AP funding for purposes other than funding the procurement of long-lead items requested by DOD.

Supporters could argue that this option, by strengthening adherence to the full funding policy, would reduce the chance that supporters of other kinds of DOD procurement items, such as aircraft, would seek to have them funded using incremental funding. Budget spikes associated with procuring aircraft carriers or big-deck amphibious assault ships, they could argue, can be anticipated years in advance, permitting their effects to be carefully managed. They could argue that stability in Navy ship-procurement plans can be increased by encouraging the Navy and DOD to better define their thinking regarding Navy requirements, and that ship-procurement costs can be reduced through measures other than incremental funding or advance appropriations, such as multiyear procurement, contracts that are structured to provide incentives to shipbuilders to control costs, and investment in improved shipyard production capabilities.

Opponents of this policy could argue that it would deprive Congress of the flexibility it has under current funding practices to use incremental funding on a limited basis when absolutely necessary and to use AP funding for purposes other than funding long-lead items requested by DOD. Congress, they could argue, should not deprive itself of tools that might help improve stability in Navy shipbuilding plans, reduce ship-procurement costs, and preserve the shipbuilding industrial base within available funding. Congress, they could argue, has recently taken steps to discourage the spread of incremental funding to DOD procurement items other than ships, and can continue doing this while preserving some flexibility for itself in funding ship procurement.

Increase Use of Incremental Funding

This option could involve explicitly (rather than tacitly) using incremental funding for aircraft carriers, using incremental funding to procure all (not just some) big-deck amphibious assault ships, or both. It could also involve funding the procurement of the lead ships of each new class of Navy ships in the Navy's research

¹⁸ Opponents of this option could note that DOD, as part of its FY2003, FY2004, and FY2005 defense budgets and its FY2003-FY2007, FY2004-FY2009, and FY2005-FY2009 FYDPs, proposed procuring 60 C-17 airlift aircraft under a follow-on multiyear procurement (MYP) arrangement approved by Congress in FY2002 that would procure at least some of the aircraft with funding profiles that resembled incremental funding rather than full funding. Under this approach, the Air Force requested Congress to appropriate enough money in a given year to make progress payments on the MYP contract rather than to fully fund a specific number of aircraft. See CRS Report RL31404, *op cit*, pp. 7-8.

and development account rather than the ship-procurement account, as the Navy has proposed.

Supporters of this option could argue that it would take maximum advantage of opportunities for avoiding or mitigating budget spikes associated with the procurement of these ships. They could also argue that it could strengthen the full funding policy by making it clear to observers that only certain ships, and no other DOD procurement items, may be procured with incremental funding. They could argue that current funding practices — under which aircraft carriers can be funded with *de facto* (rather than explicit) incremental funding and some (but not all) amphibious ships are funded with incremental funding (either *de facto* or explicit) — can send confusing signals regarding adherence to the full funding policy, and that a clear, explicit policy of using incremental funding only for certain ships would send a clear signal that these ships represent special exceptions to an otherwise strict practice of adhering to the full funding policy.

Opponents of this option could argue that any use of incremental funding weakens the full funding policy, increasing the likelihood of proposals to use it for funding other DOD procurement items. Incremental funding, they could argue, should be used to avoid or mitigate budget spikes only when doing so is necessary to avoid disruptions in ship-procurement programs that would substantially increase procurement costs. Depending on the composition of the ship-procurement plan, they could argue, the budget spike associated with a carrier or big-deck amphibious assault ship might or might not lead to a disruption that substantially increased procurement costs, and that such increases in any event would have to be weighed against the risk of an increase in cost of an incrementally funded ship due to a decision in a future year to reduce or delay a funding increment.

Begin Using Advance Appropriations

This option could involve starting to use advance appropriations for ships such as aircraft carriers or big-deck amphibious assault ships.

Supporters could argue that this option, like the previous one, would take maximum advantage of opportunities for avoiding or mitigating budget spikes associated with the procurement of these ships. Since advance appropriations is a form of full funding, they could argue that this option would not weaken the full funding policy. They could also argue that compared to the previous option, this option would create less risk of an increase in the cost of an aircraft carrier or big-deck amphibious assault ship due to a decision to reduce or defer a funding increment because, under advance appropriations, funding increments occur automatically unless Congress takes a positive actions to stop them.

Opponents of this option could argue that even though advance appropriations is a form of full funding, introducing its use into Navy ship procurement would still amount to a relaxation of the application of the full funding concept to DOD procurement that could serve as a precedent for subsequent proposals to relax its application still further. This option, they could argue, is unnecessary because a budget spike associated with the procurement of an aircraft carrier or big-deck amphibious assault ship can be accomplished through the currently accepted practice

of occasionally using incremental funding. Starting to use advance appropriations for aircraft carriers or big-deck amphibious assault ships, they could argue, creates a risk of increasing the procurement cost of other ships as a result of concentrating potential reductions in future-year ship-procurement budgets on those ships.¹⁹

Transfer Lead-Ship DD/NRE Costs to R&D Account

In Navy ship-procurement programs, the detailed design and nonrecurring engineering (DD/NRE) costs for each class of ship — the cost to create the detailed plans for building the class — are included in the procurement cost of the lead ship in the class. Since the DD/NRE costs for a complex combatant can be significant, including them in the procurement cost of the lead ship can make that ship significantly more expensive to procure than the second and subsequent ships in the class.

In the case of the DD(X) destroyer program, for example, the lead ship's total procurement cost of roughly \$2.8 billion includes about \$1 billion in DD/NRE costs for the class. The remaining \$1.8 billion or so is the actual hands-on construction cost for the lead ship. Including \$1 billion of DD/NRE costs in the procurement cost of the lead DD(X) increased the ship's procurement cost by 56% and likely contributed to the Navy's decision that it could not afford to fully fund the ship in FY2006 while meeting other FY2006 funding needs.

Including DD/NRE costs in the procurement cost of the lead unit is a practice that is not followed by other DOD procurement programs, such as programs for procuring aircraft, ground vehicles, and missiles. If it were, the lead units of these other types of procurement programs would be significantly more expensive to procure.

One response to the challenge of paying for lead ships whose procurement cost includes significant DD/NRE costs, would be to fund the procurement of lead ships through the Navy's research and development (R&D) account rather than the Navy's ship-procurement account, as the Navy has proposed in 2004 and 2005. This approach, which would permit both DD/NRE costs and the hands-on construction costs of lead ships to be funded incrementally while not violating the full funding policy, can be viewed as an example of the previously -discussed option of increasing the use of incremental funding.

¹⁹ For additional discussion of the options of using incremental funding or advance appropriations for procuring aircraft carriers or other Navy ships, see Irv Blickstein and Giles Smith, *A Preliminary Analysis of Advance Appropriations as a Budgeting Method for Navy Ship Procurements*, RAND, Santa Monica (CA), 2002. 45 pp. (RAND National Defense Research Institute, MR-1527-Navy); and John Birkler *et al.*, *Options for Funding Aircraft Carriers*, RAND, Santa Monica (CA), 2002. 58 pp. (RAND National Defense Research Institute, MR-1526-Navy). The second report also discusses a third option for funding aircraft carriers called capital account funding. The report describes this as an approach "in which Congress commits to a specific level of annual funding (adjustable from time to time) sufficient to support all carrier-construction activities over the long term. The account could serve as a source of either incremental funding or full funding." (p. xi)

As discussed earlier, Congress, in acting on the Navy's proposed FY2005 defense budget, rejected the Navy's proposal to procure the lead DD(X) through the Navy's research and development account, directed the Navy to fully fund the lead DD(X) in the Navy's ship-procurement account, and fully funded the lead LCS in the Navy's research and development account.

An alternative approach to the challenge of paying for lead ships whose procurement cost includes significant DD/NRE costs would be to treat DD/NRE work as the final stage of the R&D process and transfer DD/NRE costs to the Navy's R&D account. Under this option, the DD/NRE costs for a ship class could be incrementally funded without violating the full funding policy, while the actual hands-on construction cost of the lead ship would be fully funded, in conformance with the full funding policy.

This option can be viewed as an intermediate approach that is between the current practice of fully funding both DD/NRE costs and the lead ship's hands-on construction costs, and incrementally funding both these costs in the R&D account, as would occur under the Navy's proposal.

In the case of the DD(X) program, this intermediate approach would permit the Navy to incrementally fund roughly \$1 billion in DD/NRE costs, potentially increasing the Navy's ability to fund the lead DD(X) in FY2006 while meeting other FY2006 funding needs.

Supporters of this option could argue that DD/NRE work is best viewed as the final stage of research and development and should be treated as such in the budget, and that shifting these costs to the R&D account would make Navy ship-procurement programs look more like DOD procurement programs for things such as aircraft, ground vehicles, and missiles.

Opponents could argue that NN/NRE work is more closely related to production than to research, and that the current practice of including DD/NRE costs in the procurement cost of the lead ship makes these costs more visible to Congress, which is important because detailed design costs for certain past Navy ships have experienced significant cost growth.

Legislative Activity in 2005

H.R. 1815/S. 1042 (FY2006 Defense Authorization Bill)

H.R. 1815. In its report (H.Rept. 109-89 of May 20, 2005) on the FY2006 defense authorization bill (H.R. 1815), the House Armed Services Committee states:

[Chief of Naval Operations] Admiral [Vernon] Clark, in his posture statement before the House Committee on Appropriations, Subcommittee on Defense stated, "We need to partner with Congress and industry to regain our buying power. Acquisition and budget reforms, such as multi-year procurement, economic order quantity, and other approaches help to stabilize the production path, and in our view, reduce the per unit cost of ships and increase our

shipbuilding rate.” The committee does not agree that creative financing methodologies that delay recognizing the true cost of shipbuilding or that provide ever-increasing amounts of funding to cover the explosion in ship costs are responsible actions. Incremental funding, advanced procurement, multiyear procurement, and various creative shipyard work allocation arrangements have failed to control the cost growth of vessel classes such as the Virginia class submarine, the replacement amphibious assault ship (LHA(R)), the future major surface combatant ship (DD(X)), and the future aircraft carrier CVN — 21. (Page 63)

Section 1004 of the bill as reported by the committee states:

SEC. 1004. REPORTS ON FEASIBILITY AND DESIRABILITY OF CAPITAL BUDGETING FOR MAJOR DEFENSE ACQUISITION PROGRAMS.

(a) Capital Budgeting Defined- For the purposes of this section, the term ‘capital budgeting’ means a budget process that —

- (1) identifies large capital outlays that are expected to be made in future years, together with identification of the proposed means to finance those outlays and the expected benefits of those outlays;
- (2) separately identifies revenues and outlays for capital assets from revenues and outlays for an operating budget;
- (3) allows for the issue of long-term debt to finance capital investments; and
- (4) provides the budget authority for acquiring a capital asset over several fiscal years (rather than in a single fiscal year at the beginning of such acquisition).

(b) Reports Required- Not later than July 1, 2006, the Secretary of Defense and the Secretary of each military department shall each submit to Congress a report analyzing the feasibility and desirability of using a capital budgeting system for the financing of major defense acquisition programs. Each such report shall address the following matters:

- (1) The potential long-term effect on the defense industrial base of the United States of continuing with the current full up-front funding system for major defense acquisition programs.
- (2) Whether use of a capital budgeting system could create a more effective decisionmaking process for long-term investments in major defense acquisition programs.
- (3) The manner in which a capital budgeting system for major defense acquisition programs would affect the budget planning and formulation process of the military departments.
- (4) The types of financial mechanisms that would be needed to provide funds for such a capital budgeting system.

S. 1042. Section 122 of the FY2006 defense authorization bill (S. 1042) as reported by the Senate Armed Services Committee (S.Rept. 109-69 of May 17, 2005) would permit the aircraft carrier CVN-21 to be procured with split funding (i.e., incremental funding) during the period FY2007-FY2010. The section states:

SEC. 122. SPLIT FUNDING AUTHORIZATION FOR CVN-78 AIRCRAFT CARRIER.

(a) AUTHORITY TO USE SPLIT FUNDING- The Secretary of the Navy is authorized to fund the detail design and construction of the aircraft carrier designated CVN-78 using split funding in the Shipbuilding and Conversion, Navy account in fiscal years 2007, 2008, 2009, and 2010.

(b) CONDITION FOR OUT-YEAR CONTRACT PAYMENTS- A contract entered into for the detail design and construction of the aircraft carrier designated CVN-78 shall provide that any obligation of the United States to make a payment under the contract for a fiscal year after fiscal year 2006 is subject to the availability of appropriations for such fiscal year.²⁰

Section 123 of the bill would permit an amphibious assault ship LHA(R) to be procured with split funding (i.e., incremental funding) in FY2007 and FY2008. The section would also permit FY2006 funding to be used for advance construction of the ship. The section states:

SEC. 123. LHA REPLACEMENT (LHA(R)) SHIP.

(a) AMOUNT AUTHORIZED FROM SCN ACCOUNT FOR FISCAL YEAR 2006- Of the amount authorized to be appropriated by section 102(a)(3) for fiscal year 2006 for shipbuilding and conversion, Navy, \$325,447,000 shall be available for design, advance procurement, and advance construction with respect to the LHA Replacement (LHA(R)) ship.

(b) AMOUNTS AUTHORIZED FROM SCN ACCOUNT FOR FISCAL YEARS 2007 AND 2008- Amounts authorized to be appropriated for fiscal years 2007 and 2008 for shipbuilding and conversion, Navy, shall be available for construction with respect to the LHA Replacement ship.

(c) CONTRACT AUTHORITY-

(1) DESIGN, ADVANCE PROCUREMENT, AND ADVANCE CONSTRUCTION- The Secretary of the Navy may enter into a contract during fiscal year 2006 for design, advance procurement, and advance construction with respect to the LHA Replacement ship.

(2) DETAIL DESIGN AND CONSTRUCTION- The Secretary may enter into a contract during fiscal year 2007 for the detail design and construction of the LHA Replacement ship.

(d) CONDITION FOR OUT-YEAR CONTRACT PAYMENTS- A contract entered into under subsection (c) shall provide that any obligation of the United States to make a payment under the contract for a fiscal year after fiscal year 2006 is subject to the availability of appropriations for that purpose for such fiscal year.²¹

²⁰ For more on the CVN-21 program, see CRS Report RS20643, *Navy CVN-21 Aircraft Carrier Program: Background and Issues for Congress*, by Ronald O'Rourke.

²¹ For more on the LHA(RE) program, see CRS Report RL32513, *Navy-Marine Corps Amphibious and Maritime Prepositioning Ship Programs: Background and Oversight Issues* (continued...)

S.Rept. 109-69 states:

The CVN-78 will be a new class of aircraft carrier, incorporating numerous new technologies. This budget request reflects the second one-year slip in the program in recent years. This slip would cause a delay in the delivery of the CVN-78 until fiscal year 2015, with the ship it is scheduled to replace, the USS Enterprise (CVN-65), scheduled to be decommissioned in fiscal year 2013. Additionally, this slip translates into a cost growth for CVN-78 of approximately \$400.0 million, according to the Navy.

The committee is concerned about this delay. The committee has been told there is no technical reason for the delay, but that the delay was driven by budget considerations. Both the Secretary of the Navy and the Chief of Naval operations testified that large capital assets such as aircraft carriers are difficult to fund under the traditional full-funding policy, and that more flexible methods of funding must be found and used. The program of record for CVN-78 has the detail design and construction funding split between two years. This provision would authorize that same funding to be split over four years, thereby allowing needed funding flexibility. The committee directs the Navy to provide an updated funding profile, fully funding the remaining costs of the ship from fiscal years 2007 through 2010, with delivery of the fiscal year 2007 budget request.

H.R. 2863 (FY2006 Defense Appropriations Bill)

House. In its report (H.Rept. 109-119 of June 10, 2005) on H.R. 2863, the House Appropriations Committee stated, in the section on Navy shipbuilding, that it “supports the LHA(R) [amphibious assault ship] program, and it directs the Navy to reconsider its proposal to request split funding for LHA(R) over the FY2007-08 timeframe, and instead follow the full funding principle for this ship class, to ensure an adequate budget is in hand before contract award.” (Page 146)

H.Con.Res 95 (Concurrent Resolution on FY2006 Budget)

Conference Report. The conference report (H.Rept. 109-62 of April 28, 2005) on H.Con.Res 95, the budget resolution for FY2006, states:

The conference conferees understand the Navy may review whether advance appropriations can improve its procurement of ships and provide savings as it designs its 2007 budget. In addition, the conferees intend to request the Government Accountability Office [GAO] to assess the implications of using advance appropriations to procure ships.

The report notes that

Section 401 [of H.Con.Res 95] reflects an overall limit on advance appropriations of \$23.158 billion in fiscal year 2007, which is the same limit on advance appropriations as has been included in all previous limitations on advance appropriations in past budget resolutions.

²¹ (...continued)
for Congress, by Ronald O'Rourke.

The report includes the Shipbuilding and Conversion, Navy (SCN) appropriation account in the list of accounts identified for advance appropriations in the Senate.

S.Amdt. 146 to S.Con.Res. 18. S.Con.Res 18 is the earlier Senate version of the budget resolution. Senate Amendment (S.Amdt) 146 to S.Con.Res. 18 was sponsored by Senator Warner, co-sponsored by several other members, and submitted on March 15, 2005. It would amend Section 401 of S.Con.Res. 18 — the section that restricts use of advance appropriations — to increase the amount of advance appropriations in FY2007 and FY2008 by \$14 billion, to \$37.393 billion. The amendment would also insert a new provision (Section 409) that would include the Shipbuilding and Conversion, Navy (SCN) appropriation account on a list of accounts identified for advance appropriations in the joint explanatory statement of the managers to accompany S.Con.Res. 18. The amendment was ordered to lie on the table. The Senate passed S.Con.Res. 18 on March 17, 2005.²²

²² For additional discussion, see “Collins, Warner Team To Fund Shipbuilding,” *Defense Today*, March 17, 2005; and Christopher J. Castelli, “Warner Amendment On Advance Appropriations For Ships Is Withdrawn,” *Inside the Navy*, March 21, 2005.

Appendix A. Recent Ships Procured with Incremental Funding

This appendix discusses Navy and DOD ships that have been procured in recent years or are currently being procured using incremental funding.

DOD LMSR-Type Sealift Ships

As part of its action on the FY1993 defense budget, Congress created the National Defense Sealift Fund (NDSF) — a revolving fund in the DOD budget for the procurement, operation, and maintenance of DOD-owned sealift ships²³ — and transferred procurement of new military sealift ships and certain Navy auxiliary ships from the Shipbuilding and Conversion, Navy (SCN) appropriation account, where they traditionally had been procured, to the NDSF.²⁴ Since the NDSF is outside the procurement title of the defense appropriation act, sealift ships procured since FY1993, including DOD's Large, Medium-Speed, Roll-on/Roll-off (LMSR) ships (as well as Navy Lewis and Clark (TAKE-1) dry cargo ships procured since FY2003²⁵) have not been subject to the full funding policy as traditionally applied to DOD procurement programs.

As discussed in a 1996 CRS report,²⁶ although individual LMSRs were ostensibly fully funded each year by Congress, like ships procured in the SCN account, DOD in some cases actually applied LMSR funding provided in a given year to partially finance the construction of LMSRs authorized in various years. For example, although Congress ostensibly approved \$546.4 million in FY1995 for the procurement of two LMSRs, the FY1995 funds were actually applied to help finance

²³ Sealift ships are cargo ships that transport military equipment and supplies from one land mass to another. Government-owned sealift ships are operated by the Military Sealift Command using mostly civilian crews.

²⁴ Congress created the NDSF through Section 1024 of the FY1993 defense authorization act (H.R. 5006; see pages 178-181 of H.Rept. 102-966 of October 1, 1992, the conference report on the act), as amended by Title V of the FY1993 defense appropriations act (H.R. 5504).

²⁵ The first 3 ships in the Navy's 12-ship Lewis and Clark (TAKE-1) class auxiliary ship program were procured in the SCN account using full funding. DOD, starting with its FY2003 defense budget and FY2003-FY2007 FYDP, proposed to fund the remaining 9 ships in the program during the years FY2003-FY2007 in the NDSF, where they would not be subject to the full funding provision as traditionally applied to DOD procurement programs. This proposal was consistent with congressional interest for this approach expressed in action on the FY2001 defense budget. (See H.Rept. 106-616 of May 12, 2000, the House Armed Services Committee report on the FY2001 defense authorization bill [H.R. 4205], page 89; S.Rept. 106-292, the Senate Armed Services Committee report on the FY2001 defense authorization bill [S. 2549], page 93; and H.Rept. 106-945, the conference report on the FY2001 defense authorization bill [H.R. 4205], p. 35 [Sec. 127].) TAKE-1 class ships since FY1993 have been funded by Congress in the NDSF.

²⁶ CRS Report 96-257 F, *Sealift (LMSR) Shipbuilding and Conversion Program: Background and Status*, by Valerie Bailey Grasso. (Archived report; copies available directly from Ronald O'Rourke.)

portions of 16 LMSRs whose construction contracts were awarded between FY1993 and FY1997. In explaining its use of funds in the LMSR program, DOD stated:

The National Defense Sealift Fund (NDSF) is not a procurement appropriation but a revolving fund. Dollars appropriated by Congress for the fund are not appropriated to purchase specific hulls as in the case of, for example the Navy's DDG-51 program. Rather, dollars made available to the NDSF are executed on an oldest money first basis. Therefore, full funding provisions as normally understood for ship acquisition do not apply.²⁷

SSN-23 Attack Submarine

The Jimmy Carter (SSN-23), the third and final Seawolf (SSN-21) class attack submarine, was originally procured in the FY1992 defense budget, which Congress passed in 1991. In early 1992, the George H. W. Bush Administration terminated procurement of further Seawolf-class submarines and proposed rescinding funds for both the second Seawolf-class boat (SSN-22, which had been procured in FY1991) and SSN-23. In acting on this proposal, Congress rejected the request to rescind funding for SSN-22 (i.e., Congress affirmed the procurement of SSN-22), effectively suspended the procurement of SSN-23, and gave the Secretary of the Navy the choice of whether to reinstate procurement of SSN-23. In 1993, as part of its Bottom-Up Review (BUR) of U.S. defense policy and programs, the Clinton Administration decided to reinstate procurement of SSN-23 in FY1995 or FY1996 (it later settled on FY1996). By this point, \$382.4 million had already been obligated and expended on SSN-23. Congress' action on the 1992 rescission proposal also made an additional \$540.2 million in funding available for obligation to SSN-23. As a consequence, completing the approximate \$2.4 billion cost of SSN-23 would require about \$1.5 billion in additional funding.

The Administration requested \$1,507.5 million in FY1996 to complete the cost of SSN-23. Congress approved the procurement of SSN-23 in FY1996, but provided only \$700 million in procurement funding, leaving about \$807.5 million to complete the cost of the ship.

Rather than requesting all \$807.5 million or so in FY1997, the Administration requested \$699.1 million in FY1997 for SSN-23 and deferred the final \$105 million or so needed to complete the cost of the ship (as adjusted) to FY1998. Congress, as part of its action on the FY1996 defense budget, approved \$649.1 million (rather than \$699.1 million) for SSN-23, leaving about \$155 million to complete the cost of the ship.

The Administration requested \$153.4 million in FY1998 to complete the cost of SSN-23 (as adjusted); Congress approved this amount. Thus, of the approximately \$2.4 billion cost of SSN-23 as then estimated,²⁸ a total of \$802.5 million — about

²⁷ DOD information paper on strategic sealift acquisition program provided to CRS by U.S. Navy Office of Legislative Affairs, Jan. 25, 1995, p. 1.

²⁸ The Navy subsequently decided to build SSN-23 to a lengthened configuration that
(continued...)

one-third of the total estimated cost of the ship — was appropriated by Congress in the two years (FY1997 and FY1998) following the year (FY1996) in which SSN-23 was (for a second time) procured.

LHD-6 Amphibious Assault Ship

Going into the conference on the FY1993 defense appropriation bill, the House had recommended fully funding procurement of the Wasp (LHD-1) class amphibious assault ship Bonhomme Richard (LHD-6) — a ship the Administration had not requested for procurement — at a cost of \$1.205 billion, while the Senate recommended \$1.050 billion. During the conference, however, competition among various programs for defense funding resulted in an agreement in which LHD-6 was approved for procurement in FY1993 but only \$305 million in FY1993 funding was provided. The conference report on the bill stated:

The conferees agree to provide \$305,000,000 in funds to initiate the purchase of one LHD-1 class amphibious assault ship. The conferees have provided authority for the Navy Secretary to enter into a contract for this ship even though full funding has not yet been provided to the Navy. The conferees request that the Navy award a contract for the construction of this vessel and include the additional funds required for this program in its fiscal year 1994 budget request.²⁹

The \$893.8 million needed to complete the funding of the ship (as adjusted) was requested by the Administration in FY1994 and approved by Congress. Thus, LHD-6 was split-funded, with about three-quarters of the cost of LHD-6 provided the year after the ship's year of procurement.

LHD-8 Amphibious Assault Ship

Congress included a provision in the Shipbuilding and Conversion, Navy (SCN) sections of both the FY2000 and FY2001 defense appropriations acts stating “That the Secretary of the Navy is hereby granted the authority to enter into a contract for an LHD-1 [class] Amphibious Assault Ship which shall be funded on an incremental basis.” The ship in question is LHD-8, which is now being funded on an incremental basis, with the final increment scheduled for FY2006. DOD records the ship in its budget presentations as having been procured in FY2002.

CVN-21 Aircraft Carrier

The Administration is proposing to procure CVN-21, the Navy's next aircraft carrier, using split funding in FY2008-FY2009. In addition, CVN-21 has received AP funding since FY2001, and the total amount of AP funding to be provided during

²⁸ (...continued)

included an approximately 100-foot additional mid-hull section. This section increased the estimated cost of SSN-23 by roughly \$900 million.

²⁹ H.Rept. 102-1015 of October 5, 1992, p. 101.

the period FY2001-FY2007 equates to roughly one-third of the cost of the ship.³⁰ Funding for CVN-21 is thus to be provided through a series of increments starting in FY2001 and ending in FY2009, with roughly one-third of the cost of the ship to be provided in years prior to the year of procurement, about one-third in the year of procurement, and about one-third in the year following the year of procurement.

³⁰ For more on the CVN-21 program, see CRS Report RS20643, *Navy CVN-21 Aircraft Carrier Program: Background and Issues for Congress*, by Ronald O'Rourke.

Appendix B. Funding For Lead DD(X) and Lead LCS

Congress, in acting on the Navy's proposed FY2005 defense budget, rejected the Navy's proposal to procure the lead DD(X) through the Navy's research and development account, directed the Navy to fully fund the lead DD(X) in the Navy's ship-procurement account, and fully funded the lead LCS in the Navy's research and development account. This appendix presents excerpts from committee and conference report language on concerning the funding of the lead DD(X) and lead LCS.

DD(X) Program

Authorization. **The House Armed Services Committee**, in its report (H.Rept. 108-491 of May 14, 2004) on the FY2005 defense authorization bill (H.R. 4200), stated:

The committee has observed the increasing use of funds designated for research and development (R&D) purposes to acquire operational platforms. The fiscal 2005 budget proposal would take the practice to unprecedented levels, with three DD(X) and two LCS ships, three E-2C aircraft, and eleven VH-XX helicopters proposed for acquisition with R&D funds.

The use of R&D funds for prototypes and truly developmental items is both proper and prudent. This practice also makes sense when, following the completion of testing, a test asset still has useful capability to bring to the operational fleet. However, it is difficult to believe that nearly half of the VH-XX fleet, for example, qualifies as prototypes or dedicated test assets. The fact that the platforms may occasionally be used for some testing purposes does not, in the committee's view, qualify them as research craft. Indeed, the committee would be surprised were the department actually proposing to regularly carry the President on prototype aircraft.

While the committee recognizes the increased flexibility of R&D funds in acquiring platforms, there is concern that placing acquisition programs in the R&D budget, particularly at their early, least stable stage, threatens other programs, particularly in science and technology. The R&D budget is a very small pool from which to fund acquisitions of large items like ships, and as procurements are must-pay bills, typical procurement cost-growth would put the rest of the R&D budget at risk.

The committee's action with regard to particular programs funded in R&D should therefore be seen not only as a reflection of the merits of those items, but also as an expression of concern over the rapidly expanding portion of the R&D budget being used for purposes other than R&D. (Pages 248-249)

The Senate Armed Services Committee, in its report (S.Rept. 108-260 of May 11, 2004) on the FY2005 defense authorization bill (S. 2400), stated:

The committee believes that if the flexibility provided by using RDTE,N funds for the lead ship at the lead shipyard is justified, that same flexibility is necessary for the follow ship at the second shipyard as well. (Pages 130-131)

Appropriation. The Senate Appropriations Committee, in its report (S.Rept. 108-284 of June 24, 2004) on the FY2005 defense appropriations bill (S. 2559), stated:

The Committee recommends supporting the President's budget request for the DD(X) Destroyer program but holds that construction of the ship should be funded within the shipbuilding and conversion account in a manner consistent with prior shipbuilding programs. The Committee is encouraged by the Navy's willingness to propose nontraditional means of overcoming the enormous financial burden that ship cost overruns and prior year bills place upon the shipbuilding budget, but finds that such costs would not be eliminated but rather obscured by funding ship construction in the research and development account. Therefore, the Committee recommends transferring \$221,116,000 of research and development funding to the Shipbuilding and Conversion, Navy account and directs the Navy to fund future ship construction programs within the shipbuilding and conversion account. In addition, the Committee recommends providing \$99,400,000 in advance procurement funding for the second DD(X) ship to be constructed at a second source shipyard. (Page 83.)

The conference report (H.Rept. 108-622 of July 20, 2004) on H.R. 4613 (P.L. 108-287 of August 5, 2004) stated:

The conferees agree to provide a total of \$305,516,000 for advance procurement for the DD(X) class of ships instead of \$320,516,000 as proposed by the Senate and no appropriation as proposed by the House. The conferees direct the Navy to include future funding requests for the DD(X) in the Shipbuilding and Conversion, Navy appropriation.

Within the funds provided, \$221,116,000 is only for design and advance procurement requirements associated with the first ship of the DD(X) class and \$84,400,000 is only for design and advance procurement requirements associated with construction of the second ship at an alternative second source shipyard....

The conferees direct that full funding of the remaining financial requirement for these ships, not including traditional advance procurement requirements, shall be included in a future budget request. (Page 188.)

LCS Program

Appropriation. The House Appropriations Committee, in its report (H.Rept. 108-553 of June 18, 2004) on the FY2005 defense appropriations bill (H.R. 4613), stated:

The Committee remains impressed with the Navy's initiative in pursuing the LCS program, which promises to address significant operational gaps in Navy capability while presaging new ways of developing and fielding technology to the Fleet. The Committee has agreed to the Navy's request to fund construction of LCS in the research, development, test and evaluation appropriation, recognizing the Navy's desire to more readily accommodate potential changes to the program. The Committee approves this request because it views the Flight 0 ship as a prototype of a completely new class of ship. Once the Navy has completed and tested the prototype, it should proceed with the preliminary design and construction of the first Flight 1 ship.

The Committee recommendation includes increasing the budget request for the construction of the first Flight 0 LCS by \$107,000,000, fully funding this construction effort at \$214,000,000. The fiscal year 2005 request included only \$107,000,000 for the first increment of the LCS construction. Budget documentation indicates the Navy plans to request an additional \$107,000,000 for the second and final increment for the first ship in fiscal year 2006. The Committee strongly opposes incremental funding of ship construction and therefore has provided a total of \$214,000,000 in 2005 for construction of the first LCS, fully funding the construction requirement in one year. (Pages 288-289.)

The Senate Appropriations Committee, in its report (S.Rept. 108-284 of June 24, 2004) on the FY2005 defense appropriations bill (S. 2559), stated:

The Committee supports the budget request for the Littoral Combat Ship and consents to the Navy's request to fund construction of the first prototype ship for each of two ship designs in the Research and Development, Navy account. Approval for funding LCS in the research and development account is strictly based on the acknowledgment of the prototypical nature and high level of technical risk inherent in this program. The Committee finds LCS to be unique and unlike any other shipbuilding program the Navy has previously pursued; and therefore, grants the Navy's request for the increased flexibility that funding within the research and development account affords. However, the Committee directs that all follow-on ships beyond one prototype for each LCS ship design be fully funded in the Shipbuilding and Conversion, Navy account.... In addition, the consent to build the LCS prototype ships with research and development funding should in no way be interpreted as approval for other ship construction programs to be funded within the Research and Development, Navy account. (Pages 156-157)

The conference report (H.Rept. 108-622 of July 20, 2004) on H.R. 4613 (P.L. 108-287 of August 5, 2004) includes a provision (Section 8092) that states in part:

None of the funds provided in this Act may be obligated to prepare a fiscal year 2006 budget request for a third vessel under the Littoral Combat Ship program in fiscal year 2006: Provided, That funds for the second vessel shall be for a second source supplier: Provided further, That all subsequent ships shall be purchased with "Shipbuilding and Conversion, Navy" funds beginning in fiscal year 2007.

The conference report stated:

The conferees agree with the Senate that all follow-on ships, beyond one of each prototype design, should be fully funded in the Shipbuilding and Conversion, Navy appropriation. (Pages 310.)