# **RESEARCH & DEBATE**

#### **BUILDING THE FUTURE FLEET SHOW US THE ANALYSIS!**

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Since 11 September 2001, the U.S. defense budget has risen by about 25 percent, after factoring out inflation. The reasons for such an increase are numerous: simultaneously fighting wars in both Afghanistan and Iraq, increases in military pay and benefits, and more money for some major weapons programs. In this

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same time period, money devoted to building the Navy's ships has only bounced around. In fiscal year 2001, the Navy spent \$12 billion on ships. The President's request for ships in 2005 is \$11 billion. Why might this be the case?

- First, while Navy officials may be doing an excellent job explaining why the United States needs a navy, they are not doing a good job explaining why it needs the navy they say it needs.
- Second, both numbers of ships and their capabilities matter when measuring or justifying the need for naval power.
- Third, the Navy's transformation vision, Sea Power 21, does not resolve those issues.
- Fourth, as a result, the Navy may find itself constrained to execute its long-term ship-building program with budgets no greater than today's levels.

The U.S. Navy is doing a great job explaining why the United States must have a Navy, but not such a good job explaining why it needs either a 375-ship fleet, or even to maintain its current 295-ship fleet. For example, in many presentations on military transformation or the future security environment, Navy officials illustrate the paths and avenues of the world's oceangoing commerce, or the distribution of the world's population. Their point is to demonstrate how more and more of the world's economic activity crosses the oceans—hence the need for the United States to maintain an active military presence around the world to ensure the freedom of the seas. They also observe that 80 percent of the world's population lives in the littorals; therefore the Navy must focus on and be able to operate in the world's coastal regions because with the demise of the Soviet threat, that is where the action will be. The fact that most of the world's population lives in coastal regions was true twenty years ago and 200 years ago.

In 1992, the U.S. Navy in its first post—Cold War vision statement, . . . *From the Sea*, emphasized the importance of refocusing its attention from blue-water sea control to littoral operations. Twelve years later, redefining the spread of economic globalization or the sea-oriented distribution of the world's population provided little help to anyone trying to determine "how much Navy do we really need?" Over the past decade, the Navy has proposed at various times a fleet composed of 300, 310, 346, or 360 ships. The latest number is now "around 375."

The Navy's justification for the 375-ship fleet rests on a sequence of key concepts articulated in the Defense Planning Guidance (DPG) and the Navy's response to meet it. The DPG states that U.S. military strategy must defend the homeland, deter aggression in four theaters, swiftly defeat aggression in two, and win decisively in one. This has been dubbed the 1-4-2-1, or simply 4-2-1, strategy. In response, the Navy developed its Global Concept of Operations (Global Conops), which redistributes the fleet to create expeditionary strike groups out of amphibious ready groups, surface combatants, and submarines. Today's nineteen strike groups include twelve carrier battle groups and seven surface action groups. The thirty-seven strike groups of the Global Conops include those formations as well as the twelve expeditionary strike groups, two additional surface action groups, and the four SSGNs, each of which constitutes its own "group." To carry out this concept of operations, the Navy has stated, it would require about 375 ships. This is the official justification so stated in the report submitted to Congress last year. It is also found in the Navy's vision statement, "Sea Power 21," the cornerstone article written by the Chief of Naval Operations, Admiral Vern Clark.

Yet the Navy does not explicitly answer the question of how or why those capabilities in those quantities will achieve the strategy articulated in the DPG. Why are thirty-seven strike groups the right number? Why not forty-five or thirty? The Navy prefers to talk about capabilities and those capabilities are quite impressive, but why are 375 ships needed? Is the Navy arguing that 375 ships are necessary for deterrence in four theaters but that three hundred ships would not be able to do the same in the future? Are 375 ships necessary to swiftly defeat in two theaters, or win decisively in one? As I will demonstrate, the Navy's wartime requirement for ships appears to be less than 375. Recent history and any comparison with the naval forces of the world suggest that one decisive victory is more than covered by today's 294-ship Navy. So, if 375 ships are necessary to swiftly defeat in two theaters, then that has not been made explicit. Of course, one could criticize my argument by saying that the Navy can already do all the jobs asked of it by the Defense Planning Guidance with its existing fleet, but the nation assumes some "risk" in doing so. However, one can then immediately ask how that risk is being measured. Are U.S. national security or vital interests at stake? Or only some minor interest? How is the reduction of risk being related to by the capabilities of different fleet sizes?

### **Both Numbers and Capabilities**

Let me now turn directly to the numbers versus capabilities question. While some contend that the service needs more ships, others argue that the emphasis should be on fleet capabilities. For example, during his first tour as Secretary of the Navy, Gordon England stated that "it is capabilities, not numbers that matter . . . our 300 ships are far more potent than [was] our 600-ship Navy." At the same time, Admiral Clark maintains that the Navy needs about 375 ships to do all things asked of it, adding, "You can only be in one place at one time with one ship and so numbers do matter. Numbers do have a quality all their own." Those public statements indicate a tension among Navy officials over whether the service should emphasize the issue of numbers or capabilities. Capabilities measure the actual ability of the Navy to do certain missions or tasks. However, as Admiral Clark indicated, quantity also plays a role in this. One could build the most expensive, most capable warship the world has ever seen, and still it will be in one place at one time. Thus the proper question is a combination of both concepts: What capabilities does the U.S. Navy need and in what quantity?

Consider the ongoing debate over how many expeditionary strike groups are required. A year ago the Navy's answer was twelve, but according to officials, the answer may now be eight because of Sea Swap (the Navy's experiment with rotating crews every six months to a forward deployed ship); the number of groups

will make about the same contribution to forward presence as twelve. <sup>4</sup> That is an interesting point on several levels.

On one hand, just two or three years ago, the Navy argued that rotating crews to forward deployed ships would be too difficult—the challenges in both maintenance and training were considered by many as too great. Despite earlier pessimism, however, the Navy did not in the end stop considering, experimenting with, and pushing new methods of operations. Sea Swap is still an experiment only on surface combatants, although Navy officials have declared it "successful." Thus the Navy may be embracing Sea Swap with more zeal than is warranted at this stage. It has already indicated that it is planning—or at least justifying—reductions in major portions of the force structure based on the Sea Swap experiment.

Yet in the absence of a clear understanding of the Navy's peacetime and wartime requirements for amphibious ships and expeditionary strike groups, proposing to cut the force structure based on the Sea Swap experiments is raising issues and concerns in Congress, particularly among members who represent shipbuilding states. Sea Swap only helps by providing more overseas presence with the existing number of ships or the same amount of presence with fewer numbers of ships. Sea Swap does not create more wartime capability but actually reduces it by a little or a lot depending on how it is used. If the size of the force structure in question remains the same, Sea Swap reduces wartime capability a little because no ships are preparing to go on deployment (to relieve the forward deployed ship) or have returned from deployment (after relieving the forward deployed ship). Wartime capability is greatly reduced if cuts in the force structure follow its implementation. Wartime capability is still determined by the number of ships—actual, physical hulls—in the fleet. Thus one could argue that if Sea Swap permits the Navy to reduce its number of ships, it may also help provide deterrence in four theaters since it enables presence, yet it weakens the Navy's ability to swiftly defeat adversaries in two theaters because it reduces wartime capability.

Reducing the number of ships via Sea Swap, in categories that have an excess relative to wartime requirements would be prudent. However, the Navy should clearly explain what its wartime requirements are and why. Until this recent debate over the number of expeditionary strike groups, both the Marines and the Navy had wartime requirements for amphibious lift ships that were greater than the existing amphibious lift force. The long-standing Marine Corps requirement for amphibious lift is to have enough ships to carry 3.0 Marine expeditionary brigades. Long viewed as unaffordable, the Navy and the Marine Corps in the 1990s accepted that the Navy's "fiscally constrained" requirement for amphibious lift would be 2.5 Marine expeditionary brigades. Currently, the Navy has enough amphibious ships to lift 1.9 Marine expeditionary brigades. Cutting to eight expeditionary strike groups on the basis of Sea Swap would be, in short, a major change to long-standing wartime force planning.

Consider another example, the DD(X). Navy and industry briefings on the DD(X), of which there have been many over the past few years, make the case for why we need the DD(X). The ship will have an integrated power system, growth potential for new and innovative weapons, dramatic signature reduction in order to make the ship very stealthy, and long-range guns. Such capabilities, should they prove successful, would be very impressive and a valuable addition to the fleet. What is lacking in those briefings, however, is a case for how many of these ships the Navy should buy, and why. Do we need six DD(X)s or twentyfour? In 2003, the Navy's Global Conops brief stated it needed sixteen: one for each of the twelve expeditionary strike groups and then an additional four for wartime surge. Three months later, the Navy submitted to Congress a report on shipbuilding requirements over the next thirty years. It proposed a force of twenty-four DD(X)s. Does that imply two DD(X)s for each ESG? If so, why two? (It requested one just three months earlier.) Perhaps sixteen are now needed because there might be only eight expeditionary strike groups. What is the justification for all these numbers? Is there analysis behind them? Should analysis matter? In June 2004, John Young, the Assistant Secretary of the Navy for Acquisition, acknowledged that the Navy would probably end up with between thirteen and nineteen ships. He went on to add that the Navy is studying various "scenarios" to determine the right number. Yet the DD(X) program has been under way, in one form or another, since the mid-1990s, and the Navy is asking for the first ship authorization in fiscal year 2005. Why has the Navy not yet finished the analysis needed to determine how many of those ships are needed? The DD(X) appears largely oriented to providing long-range fire support from the sea, a capability the Navy currently lacks. The scenarios for it, however, seem fairly predictable and, therefore, so should the size of the DD(X) force.

Let us consider another well known example of this problem—requirements for the littoral combat ship. In 2000, the Navy sent a thirty-year shipbuilding report to the Congress. Nowhere in that report did it make mention of a need for small, fast surface combatants to maintain sea control in the world's coastal regions, nor was there mention in the 2001 Quadrennial Defense Review Report. By 2002, however, the Navy was discussing widely the need for such a craft, and by 2003, the Chief of Naval Operations, Admiral Clark, was describing the LCS as his "most transformational program and number one budget priority." He stated a need for thirty to sixty of these vessels. In May 2003, the Navy sent a new long-range shipbuilding program to Congress that called for fifty-six LCSs. No

analysis had been prepared ahead of time to determine whether the LCS was the right ship for the missions the Navy wanted, and the characteristics and capabilities of the ship had not been established. Later Admiral John Nathman, who was then Deputy Chief of Naval Operations for Warfare Requirements and Programs (N6/N7), stated in testimony that most of the analysis done to support the LCS program was done after the Navy made the decision to go forward with the program. What, then, was the basis for requiring fifty-six LCSs?

In addition, senior officials have stated that Sea Swap could also affect the LCS program. In June 2004, Admiral Nathman, now the Vice Chief of Naval Operationsdesignate, stated that perhaps they needed only forty to fifty LCSs. He argued that crew swapping could yield a "smaller procurement objective for LCS." According to the Navy, the primary missions of the LCSs are defeating anti-access threats, such as hunting for diesel electric submarines, countering swarms of small boats, and clearing mine fields. Those wartime missions are unlikely to be undertaken except in an imminent crisis or wartime environment. For a ship designed and built for wartime missions, why should the procurement objective change if crew swapping is used? The wartime requirement for ships is based on the number of hulls—something Sea Swap, as stated earlier, does not address. What, then, is the wartime requirement for LCSs? It does not appear to be fiftysix, or applying Sea Swap would not matter. Finally, the Navy also states that the LCS may take on additional missions, such as safeguarding the sea lanes, as a secondorder task after the anti-access missions. Because that is more of a presence mission, Sea Swap would improve the ability of the LCS force to do that job.

Finally, even as the numbers of DD(X)s (and other types of ships) changed over the course of the past two years, the 375-ship number remained essentially the same, potentially adding to the confusion regarding what the Navy needs. Such confusion may be affecting the funding and implementation of the Navy's shipbuilding program. In the 2004 Department of Defense authorization bill, the House Armed Services Committee acted to cut construction money from the DD(X) and LCS programs in order to delay them for one year. The House Appropriations Committee cut both DD(X) and LHA(R) funding, and criticized the Navy for its lack of analysis and detailed explanations for what it was doing. The Committee stated that it

... remains deeply troubled by the lack of stability in the Navy's shipbuilding program. . . . Programs justified to Congress in terms of mission requirements in one year's budget are removed from the next. . . . The Committee further notes that documentation submitted with budgetary proposals is often lacking in specifics regarding total program requirement (number of ships to be constructed), total program cost, and detailed expenditure plans. This lack of information makes it difficult for Congress to weigh options for funding programs throughout the Department of

Defense. Furthermore, it obscures the impact of current decisions on future budgetary requirements. <sup>11</sup>

## SEA POWER 21 IS NOT HELPING

The Navy's vision statement, Sea Power 21, makes a good case for having in the tool kit all the capabilities it mentions, such as Sea Shield, Sea Strike, and Sea Basing. Sea Shield describes all of the capabilities that will be brought to bear to defend the fleet—or elements of it—from attack. They include missile and air defense provided by surface ships and the planes of an aircraft carrier, as well as anti-access threats posed by quiet conventional submarines, small boats, and mines. Sea Strike focuses on the offensive power of the fleet, to include the striking power of surface combatants (either with missiles or gunfire support), submarines, aircraft carriers, or the Marines disembarking from amphibious ships. Sea Basing refers to the Navy's and Marine Corps's plans to conduct military operations with battalion and brigade-sized forces ashore, supported logistically almost entirely from the sea.<sup>12</sup>

Nevertheless, Sea Power 21 provides no guidance that would help anyone understand how much is needed. It lays out in detail the changes and capabilities the Navy requires, including all of the major programs the Navy is now pursuing: CVN-21, DD(X), CG(X), LCS, *Virginia*-class attack submarines, SSGNs, LPD-17, LHA(R), MPF(F), etc. No discussion of the quantities required for those programs, however, is included. This is somewhat understandable. It is often easier to explain and thus justify the capabilities a particular weapons program brings to the fight than to sort out how many of them are necessary. Without additional justification for the quantities of major platforms the Navy desires, other factors may play a more important role in determining the size of the future fleet.

### Resource Constraints

Budgets will play a key role in determining the U.S. military's force structure, including that of the Navy. No matter how much money is available, there are always demands for more spending on an increasing range of goods and services. Thus Navy shipbuilding programs are competing with other demands within the Department of the Navy, the demands of other services, and those of domestic programs, be they social security, the environment, industry subsidies, or tax cuts. National strategy and force structure are always developed within that budgetary context. After all, if strategy (and thus force structure) could be developed unconstrained by budgets, a strategy would be unnecessary—the trade-offs and balances between competing priorities inherent in a strategy would not need to be made.

Future budgets may thus force hard choices on the Navy. From 1990 to the present, the Navy's shipbuilding program was underfunded by about \$50 billion simply to maintain today's 295-ship fleet. If the force goal was 375 ships, shipbuilding would be underfunded by more than \$100 billion. Hence if those hard choices must be made, either by the Navy, the Department of Defense, or Congress, a clear explanation of the wartime and peacetime requirements of the fleet would be valuable. In some ways, the Navy is a victim of its own success. It no longer has the Soviet navy to plan or size its fleet against. Today, the U.S. Navy could defeat any naval power on the planet within a short period of time. While that may be a blessing at sea, it can be a burden in Washington, D.C. Answering the question of what capabilities the Navy needs, in what quantities, and why may make the difference in determining whether it ends up with a fleet that is substantially larger, or smaller, than the one it has now. Right now, the service's strategy, vision, and analysis do not appear to have succeeded in producing a convincing answer. This is not to say that good answers will guarantee a larger fleet. But the long-term fiscal future suggests that with the baby boomers beginning to retire and the demand for resources by Social Security and Medicare costs rising dramatically, the lack of a strong justification will increasingly look like taking a knife to a gunfight.

### NOTES

- 1. Admiral Vern Clark, "Sea Power 21: Projecting Decisive Joint Capabilities," U.S. Naval Institute Proceedings (October 2002), p. 38.
- 2. Gopal Ratnam, "U.S. Navy Wrestles with Fleet Size, Abilities," Defense News, 1 July 2003, p. 4.
- 3. "Interview with Chief of Naval Operations Admiral Vern Clark," Sea Power (October
- 4. Christopher J. Castelli, "Navy Wants to Cut Number of Strike Groups, Slash LPD-17 Shipbuilding," Inside the Navy, 26 April 2004.
- 5. Castelli, "Navy Wants to Cut Number of Strike Groups."
- 6. Director of Surface Warfare (OPNAV N76), A Report to Congress on Annual Long-Range Plan for the Construction of Naval Vessels (13 May 2003).

- 7. Maline Brown, "Young Acknowledges Navy to Curtail DD(X) Buy, Accelerate Cruiser,' Inside the Navy, 21 June 2004.
- 8. Quoted in Scott Truver, "Navy Plans to Develop LCS Fleet with 'Lightning Speed,'" Sea Power (May 2003), p. 15.
- 9. Jason Ma, "Admiral: Most LCS Requirement Analysis Done after Decision to Build," Inside the Navy, 14 April 2003.
- 10. Dave Ahearn, "Adm. Nathman Says Perhaps Just 40 to 50 LCSs Required," Defense Today, 24 June 2004.
- 11. Quoted in the House Appropriations Report, June 2004, pp. 164-65.
- 12. See Clark, "Sea Power 21." For the supporting articles on the individual concepts, see Vice Admiral Mike Bucchi, "Sea Shield: Projecting Global Defensive Assurance," U.S. Naval Institute Proceedings (November 2002); Vice Admiral Cutler Dawson, "Sea Strike: Projecting Persistent, Responsive, and Precise

Power, U.S. Naval Institute Proceedings (December 2002); Vice Admiral Charles Moore, Jr., and Lieutenant General Edward Hanlon, Jr., "Sea Basing: Operational Independence

for a New Century," U.S. Naval Institute Proceedings (January 2003).