

United States Senate

WASHINGTON, DC 20510

July 12, 2011

The Honorable Ashton B. Carter
Undersecretary of Defense, Acquisition, Technology & Logistics
3010 Defense Pentagon
Washington, D.C. 20301-3010

Dear Dr. Carter:

For some time now, we have been keenly interested in the Navy's Littoral Combat Ship (LCS) program. Given how poorly this program has performed in terms of delays and cost overruns, careful oversight is warranted to help ensure that the program finally delivers the needed combat capability for the Navy without the wasteful expenditure of increasingly scarce Defense resources.

With that in mind, reports late last month about "aggressive galvanic corrosion" on the USS INDEPENDENCE (LCS-2), the first aluminum-hulled LCS, raise concerns about the viability of this variant and whether costly fleet-wide fixes would be needed. Just a few months earlier, in March, the Navy reported hull cracking in the steel-hulled USS FREEDOM (LCS-1). While some of that cracking was predicted and the Navy has a plan in place to ensure that it does not affect follow-on ships, the frequency with which information is coming out about major structural deficiencies in LCS-class ships is disturbing this early in the program's lifecycle. This is particularly true because such problems could impact the Navy's strategy to buy block quantities of each version of the LCS, and program-wide deficiencies could significantly impact the costs of maintaining the two LCS variants over their lifecycle.

Against this backdrop, please answer the following questions:

1. We understand that Navy officials had contemporaneous concerns about the potential for corrosion during construction of the INDEPENDENCE arising from the use of dissimilar metals, that is, aluminum for the hull and steel for this ship's water jet system. What is the root cause of the recently discovered "aggressive galvanic corrosion" problem and how extensive is it?
2. Please address public comments made by the Andrew Bellamy, Chief Executive of Austal, the company that built the INDEPENDENCE, that poor maintenance by the Navy rather than faulty craftsmanship by the yard is likely to be the cause of the aggressive corrosion found on this Navy warship and that any corrosion on this ship would be the

fault of the operator or maintainer—not the builder. If poor operational maintenance by the Navy was at least part of the cause of the problem, how do you intend to address it?

3. Reportedly, among the planned features that were cut to keep the LCS's construction costs down was a cathodic protection system (CPS), which helps control corrosion on metal surfaces. Given the concerns of Navy officials about the possibility of corrosion, described above, what engineering analysis supported making that decision?
4. At least preliminarily, the permanent solution to this problem will involve installing a CPS to protect INDEPENDENCE and similar follow-on LCS variants from galvanic corrosion. What will the total cost impact be of backfitting the INDEPENDENCE and LCS-4, the next INDEPENDENCE-type LCS to be delivered, with a CPS?
5. After a permanent solution that responds to the observed problem is implemented, what ongoing corrosion risks in this variant will exist going forward?
6. We understand that a CPS is already planned for LCS-6, the first INDEPENDENCE-type LCS to be procured under the dual-award, block-buy contract. What will the total cost impact be of building the CPS into the baseline design for those ships?
7. How much does this CPS modification impact the business case that supported the Navy's original decision to pursue a dual-award, block-buy of both LCS variants?
8. We understand that aluminum-hulled ships, such as the INDEPENDENCE, tend to corrode faster than steel-hulled ships. What is the impact of this problem on the ability of this seaframe to perform as intended?
9. Is more protection from galvanic corrosion required than would be provided by a CPS applied to identified "hot spots" for this aluminum-hulled seaframe?

As a separate matter related to the LCS program, on April 7, you executed a certification, as required under law, in support of your decision to allow the Navy's procurement of the LCS seaframes to proceed to Engineering Manufacturing and Development (EMD), known as "Milestone B" under the Defense Acquisition Management System. Congress required this certification to ensure that the Department of Defense's decision to increase taxpayer investment in developing a major weapon system is carefully supported by important cost, schedule and performance considerations. In this case, those considerations are reflected in 10 U.S.C. 2366b(a)(1)(A) - (D).

However, in your letter to the Committee, dated June 24, 2011, you noted that you were unable to certify certain components of section 2366b and, therefore, would waive them. While

you are, of course, permitted to exercise such a waiver in appropriate cases, we have concerns about this decision.

First, as a threshold matter, please note that while the law enables you waive particular provisions of 10 U.S.C. 2366b, it was Congress' intent that your rationale for doing so be specific to circumstances under which you are exercising the waiver. General assertions, as you provided in this case, that the weapon system to be developed here "will fill capability gaps identified by Combatant Commanders" and that "it is critical to national security that the DOD acquire affordable weapon systems" do little to distinguish your exercise of the waiver here from your doing so in other similarly situated programs.

Second, subsection (a)(1)(C) requires you to certify that "[r]easonable cost and schedule estimates have been developed to execute, with the concurrence of the Director, Cost Assessment and Program Evaluation (CAPE), the product development and production plan under the program." And, subsection (a)(1)(D) requires you to certify similarly that "[f]unding is available to execute the product development and production plan under the program, through [the future-years defense program], consistent with the estimates described in [subsection] (a)(1)(C)". However, we understand that you believe that the competitive firm prices the Navy obtained in connection with the contract for the seaframes are reasonable and achievable. For that reason, you have chosen to use the Navy's estimates, rather than the CAPE's. Nonetheless, you also note that, in contrast to the Navy, "[t]he CAPE believes these prices are not achievable and therefore would budget for higher estimates". (Emphasis added.) Please provide a full explanation of the CAPE's position, the analysis the CAPE relied on to support its position, and why you chose to use the Navy's cost estimates rather than the CAPE's.

Third, subsection (a)(1)(B) requires you to certify that "[a]ppropriate trade-offs among cost, schedule and performance objectives have been made to ensure that the program is affordable when considering the per unit cost and the total acquisition cost in the context of the total resources available during the period covered by [the future-years defense program]". While you waived certifying to that provision, you included in your letter no corresponding rationale that explains why you did so. As you know, section 201 of the Weapon Systems Acquisition Reform Act of 2009 highlights the importance of making precisely these sorts of trade-offs early in the acquisition cycle of weapons procurement programs to help ensure affordability. Accordingly, please provide your rationale for waiving this element.

Fourth, please indicate by what point in the program you will be prepared to certify to those provisions that you recently waived. And, provide a copy of the business case analysis, required to be conducted under 10 U.S.C. 2366b, on which you based your certifications (and waivers).

Finally, as you of course know, on March 21, 2011, your Principal Undersecretary Frank Kendall issued a directive to all the departments that was designed to enhance the reliability of the major weapon systems the Department of Defense buys *vis-à-vis* serious concerns raised by the Director of Operational Testing and Evaluation (DOT&E) Michael Gilmore about a year before. As noted in its report accompanying the Fiscal Year 2012 National Defense Authorization Act, the Senate Armed Services Committee expects all major weapon systems in development to comply with the requirements of that directive. Given the aggressive galvanic corrosion recently discovered in the USS INDEPENDENCE, please explain exactly how the LCS program will ensure reliability, and minimize major cost growth in operations and sustainment (O&S) costs attributable to reliability problems over its lifecycle, in accordance with Undersecretary Kendall's directive.

It is highly unfortunate that we first learned about the discovery of significant corrosion on the INDEPENDENCE, and obtained your letter about your decision to waive certain certifications in connection with your decision to allow the LCS seaframes to proceed to Milestone B, after the Senate Armed Services Committee considered the Fiscal Year 2012 National Defense Authorization Act. Needless to say, it is absolutely vital for the Committee to have in a timely fashion all information material to its deliberating the Department of Defense's funding requests. To assist in our further deliberation of the Act by the full Senate, we would appreciate your providing us with the requested information by Monday, July 25, 2011.

Thank you for your continuing assistance in helping to ensure careful, transparent congressional oversight of this program.

Sincerely,



Jim Webb
United States Senator



John McCain
United States Senator



Claire McCaskill
United States Senator



Scott Brown
United States Senator



Mark Begich
United States Senator



Rob Portman
United States Senator



Tom Coburn
United States Senator