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FORD CLASS AIRCRAFT CARRIER

Poor Outcomes Are the Predictable Consequences of the Prevalent Acquisition Culture

GAO Highlights

Highlights of GAO-16-84T, a testimony before the Committee on Armed Services, U.S. Senate

Why GAO Did This Study

The Navy set ambitious goals for the Ford-class program, including an array of new technologies and design features that were intended to improve combat capability and create operational efficiencies, all while reducing acquisition and life-cycle costs. The lead ship, CVN 78, has experienced significant cost growth with a reduced capability expected at delivery. More cost growth is likely. While CVN 78 is close to delivery, examining its acquisition history may provide an opportunity to improve outcomes for the other ships in the class and illustrate the dynamics of defense acquisition.

GAO has reported on the acquisition struggles facing the Ford-class, particularly in GAO-07-866, GAO-13-396, and GAO-15-22. This statement discusses: (1) the Navy's initial vision for CVN 78 and where the ship stands today; (2) plans for follow-on ship cost and construction; and (3) Ford-class experiences as illustrative of acquisition decision making. This statement is largely based on the three reports as well as GAO's larger work on shipbuilding and acquisition best practices, and also incorporates updated audit work where appropriate.

What GAO Recommends

GAO is not making any new recommendations in this statement but has made numerous recommendations to the Department of Defense in the past on Ford-class acquisition, including strengthening the program's business case before proceeding with acquisition decisions. While the Department has, at times, agreed with GAO's recommendations it has taken little to no action to implement them.

View GAO-16-84T. For more information, contact Paul L. Francis at (202) 512-4841 or francisp@gao.gov.

What GAO Found

The Ford-class aircraft carrier's lead ship began construction with an unrealistic business case. A sound business case balances the necessary resources and knowledge needed to transform a chosen concept into a product. Yet in 2007, GAO found that CVN 78 costs were underestimated and critical technologies were immature—key risks that would impair delivering CVN 78 at cost, on-time, and with its planned capabilities. The ship and its business case were nonetheless approved. Over the past 8 years, the business case has predictably decayed in the form of cost growth, testing delays, and reduced capability—in essence, getting less for more. Today, CVN 78 is more than $2 billion over its initial budget. Land-based tests of key technologies have been deferred by years while the ship's construction schedule has largely held fast. The CVN 78 is unlikely to achieve promised aircraft launch and recovery rates as key systems are unreliable. The ship must complete its final, more complex, construction phase concurrent with key test events. While problems are likely to be encountered, there is no margin for the unexpected. Additional costs are likely.

Similarly, the business case for CVN 79 is not realistic. The Navy recently awarded a construction contract for CVN 79 which it believes will allow the program to achieve the current $11.5 billion legislative cost cap. Clearly, CVN 79 should cost less than CVN 78, as it will incorporate lessons learned on construction sequencing and other efficiencies. While it may cost less than its predecessor, CVN 79 is likely to cost more than estimated. As GAO found in November 2014, the Navy's strategy to achieve the cost cap relies on optimistic assumptions of construction efficiencies and cost savings—including unprecedented reductions in labor hours, shifting work until after ship delivery, and delivering the ship with the same baseline capability as CVN 78 by postponing planned mission system upgrades and modernizations until future maintenance periods.

Today, with CVN 78 over 92 percent complete as it reaches delivery in May 2016, and the CVN 79 on contract, the ability to exercise oversight and make course corrections is limited. Yet, it is not too late to examine the carrier's acquisition history to illustrate the dynamics of shipbuilding—and weapon system—acquisition and the challenges they pose to acquisition reform. The carrier's problems are by no means unique; rather, they are quite typical of weapon systems. Such outcomes persist despite acquisition reforms the Department of Defense and Congress have put forward—such as realistic estimating and "fly before buy." Competition with other programs for funding creates pressures to overpromise performance at unrealistic costs and schedules. These incentives are more powerful than policies to follow best acquisition practices and oversight tools. Moreover, the budget process provides incentives for programs to be funded before sufficient knowledge is available to make key decisions. Complementing these incentives is a marketplace characterized by a single buyer, low volume, and limited number of major sources. The decades-old culture of undue optimism when starting programs is not the consequence of a broken process, but rather of a process in equilibrium that rewards unrealistic business cases and, thus, devalues sound practices.