

Why GAO Did This Study

In response to the shortcomings of the Navy's Littoral Combat Ship program and evolving threats, the Navy began the FFG(X) program. With FFG(X), the Navy intends to deliver a multi-mission ship that will provide anti-surface, anti-submarine, and air warfare capabilities. DOD approved FFG(X) requirements in February 2019. The Navy plans for a competitive contract award to support final FFG(X) design and construction. The program is expected to cost over \$20 billion for 20 ships.

The House report accompanying the National Defense Authorization Act for Fiscal Year 2019 included a provision for GAO to review the FFG(X) program. This report addresses, among other things, the FFG(X) acquisition approach and contracting plans.

GAO reviewed requirements, acquisition, design, and cost-related documentation. GAO interviewed Navy and other defense officials, and conducted industry site visits to each shipyard participating in FFG(X) conceptual design activities. GAO also leveraged prior GAO reports and best practices guides.

What GAO Recommends

GAO recommends that the Navy provide Congress with the independent cost estimate for FFG(X) prior to the detail design and construction contract award and seek ship warranty cost information from industry as part of the request for proposal process. While DOD generally concurred with GAO's recommendations, it did not agree to update its request for proposal to solicit ship warranty pricing. GAO continues to believe this is an essential element of the recommendation, as discussed in the report.

View [GAO-19-512](#). For more information, contact Shelby S. Oakley at (202) 512-4841 or oakleys@gao.gov.

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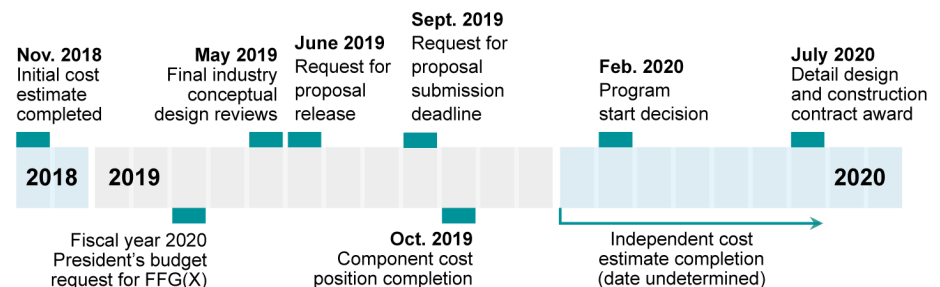
GUIDED MISSILE FRIGATE

Navy Has Taken Steps to Reduce Acquisition Risk, but Opportunities Exist to Improve Knowledge for Decision Makers

What GAO Found

The Navy undertook a conceptual design phase for the FFG(X) Guided Missile Frigate program that enabled industry to inform FFG(X) requirements, identify opportunities for cost savings, and mature different ship designs. The Navy also streamlined the FFG(X) acquisition approach in an effort to accelerate the timeline for delivering the ships to the fleet. As shown in the figure, however, the Navy has requested funding for the FFG(X) lead ship even though it has yet to complete key cost estimation activities, such as an independent cost estimate, to validate the credibility of cost expectations. Department of Defense (DOD) cost estimators told GAO the timeline for completing the independent cost estimate is uncertain. Specifically, they stated that this estimate will not be finalized until the Navy communicates to them which FFG(X) design is expected to receive the contract award. GAO-identified best practices call for requisite cost knowledge to be available to inform resource decisions and contract awards.

Timeline of FFG(X) Program Key Cost and Design Knowledge and Budgeting Activities



Source: GAO analysis of Navy information. | GAO-19-512

The Navy plans to use a fixed-price incentive contract for FFG(X) detail design and construction. This is a notable departure from prior Navy surface combatant programs that used higher-risk cost-reimbursement contracts for lead ship construction. The Navy also plans to require that each ship has a minimum guaranty of \$5 million to correct shipbuilder-responsible defects identified in the 18 months following ship delivery. However, Navy officials discounted the potential use of a warranty—another mechanism to address the correction of shipbuilder defects—stating that their use could negatively affect shipbuilding cost and reduce competition for the contract award. The Navy provided no analysis to support these claims and has not demonstrated why the use of warranties is not a viable option. The Navy's planned use of guarantees helps ensure the FFG(X) shipbuilder is responsible for correcting defects up to a point, but guarantees generally do not provide the same level of coverage as warranties. GAO found in March 2016 that the use of a guaranty did not help improve cost or quality outcomes for the ships reviewed. GAO also found the use of a warranty in commercial shipbuilding and certain Coast Guard ships improves cost and quality outcomes by requiring the shipbuilders to pay to repair defects. The FFG(X) request for proposal offers the Navy an opportunity to solicit pricing for a warranty to assess the cost-effectiveness of the different mechanisms to address ship defects.