

OFFICE OF INSPECTOR GENERAL

Verification Review of U.S. Coast Guard's Acquisition of the Sentinel Class - Fast Response Cutter (OIG-12-68)



Homeland
Security

**June 1, 2015
OIG-15-78-VR**



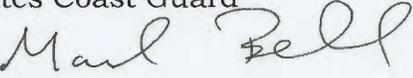
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Department of Homeland Security

Washington, DC 20528 / www.oig.dhs.gov

June 1, 2015

MEMORANDUM FOR: Rear Admiral Bruce D. Baffer
Assistant Commandant for Acquisition & Chief
Acquisition Officer
United States Coast Guard

FROM: Mark Bell 
Assistant Inspector General for Audits

SUBJECT: *Verification Review of U.S. Coast Guard's Acquisition of
the Sentinel Class – Fast Response Cutter (OIG-12-68)*

We conducted a verification review to assess the U.S. Coast Guard's progress on the recommendations from our August 2012 report, *U.S. Coast Guard's Acquisition of the Sentinel Class – Fast Response Cutter*, (OIG-12-68). We periodically conduct verification reviews to evaluate progress on selected audit recommendations, including whether corrective actions achieved the intended result.

The Coast Guard is acquiring the Sentinel Class Fast Response Cutter (FRC) to replace its aging Island-class patrol boats, as well as fulfill a critical need to expand its patrol boat fleet. The FRC is intended to perform multiple missions, including search and rescue, migrant interdiction, drug interdiction, and law enforcement.

In September 2008, the Coast Guard awarded an \$88.2 million fixed-price contract for the detailed design and construction of the lead FRC. The estimated \$1.5 billion contract contains 6 options to build a maximum of 34 cutters. In 2012, we reported that the Coast Guard's schedule-driven acquisition strategy allowed construction of the FRCs to start before operational, design, and technical risks were resolved. Consequently, six FRCs under construction needed modification, which increased the total cost of the acquisition by \$6.9 million and caused schedule delays of at least 270 days for each cutter. In addition, this acquisition strategy allowed the Coast Guard to procure 12 cutters before testing the new cutters in actual operational conditions. We made five recommendations to mitigate risks for the Fast Response Cutter, as well as future acquisitions. We determined that the Coast Guard's corrective actions met the intent of these recommendations, which we closed as of April 2013.

We conducted this verification review to determine whether the Coast Guard's implementation of our recommendations achieved the intended results. Specifically, we evaluated the Coast Guard's actions on recommendation numbers two and three:



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- “Recommendation 2: Improve low-rate initial production decisions for the U.S. Coast Guard Surface Acquisition programs by issuing a policy memorandum that requires that it achieve a specific level of design maturity at Critical Design Review”; and
- “Recommendation 3: Issue a policy memorandum that requires authorization to proceed with low-rate initial production be supported by the reported results of operational assessments.”

These two recommendations are related to a phase of the acquisition process, which is critical to risk mitigation. The purpose of low-rate initial production is to produce sufficient quantities of an asset to test, evaluate, and confirm design decisions before full production. Design maturity describes the percentage of completion of specific engineering planning drawings or documents. Critical Design Review is an acquisition phase intended to ensure that a design is sufficiently mature prior to construction.

To determine if the Coast Guard’s implementation of these recommendations achieved the intended results, we reviewed documentation from a current acquisition program—the Offshore Patrol Cutter (OPC). The Coast Guard plans to acquire 25 OPCs to replace its 25 to 50-year old medium endurance cutters. According to the Coast Guard, the OPCs will be designed and built using a two-phased strategy that establishes stable requirements and design early in the acquisition to help mitigate cost and schedule risks.

The first phase of this strategy began in February 2014, when Coast Guard awarded about \$65 million to three vendors for preliminary and contract design. Once the three vendors have submitted their designs, the Coast Guard will select one vendor to complete the second phase, which includes detailed design and options for construction of up to 11 OPCs. When these cutters are built, the Coast Guard plans to issue a competitive solicitation for the remaining cutters. According to the Coast Guard, this approach further promotes affordability by allowing it to review how 11 cutters are priced in a competitive environment before selecting a single contractor for the remaining cutters.

Results of Review

The Coast Guard’s plans to reduce risks during the OPC acquisition show progress toward achieving the intended results of our recommendations. However, it is too early in the OPC acquisition to determine whether the Coast Guard has fully implemented its plans. According to Coast Guard officials, they took steps to mitigate risks early in the OPC acquisition as a result of our audit report recommendations. In January 2013, the Coast Guard revised its *Major Systems Acquisition Manual* to establish a design maturity level prior to Critical



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Design Review and to support low-rate initial production decisions with an operational assessment. We determined that the Coast Guard has established a design maturity level for the OPC and plans to conduct two low-rate initial production phases, each supported by operational assessments.

Implementation of Recommendation 2

As we recommended, the Coast Guard established a specific design maturity level for the OPC prior to Critical Design Review. However, the design maturity level was not determined by the Coast Guard's Technical Authority as required by the *Major Systems Acquisition Manual*. Instead, the Technical Authority agreed with the maturity level established by a group of subject matter experts. Although the Technical Authority was present during discussions regarding design maturity level, its participation with the final design maturity level decision could have been better documented. The Coast Guard could improve the transparency of future acquisition decisions by better documenting the decision process, as well as stakeholders' agreement with the decision.

Implementation of Recommendation 3

As we recommended, the Coast Guard plans to ensure low-rate initial production decisions are supported by an operational assessment, which evaluates proposed cutter designs against documented operational requirements and identifies critical operational risks. Our review of OPC acquisition planning documents indicates that the Coast Guard plans to conduct two low-rate initial productions for the OPC that will be supported by operational assessments.

Methodology

We reviewed relevant OPC acquisition planning documents, including the Acquisition Plan, the Test and Evaluation Master Plan, and Request for Proposal information. We also interviewed Coast Guard acquisition officials, as well as a representative from the Technical Authority, Engineering and Logistics.

We conducted this verification review in March 2015 pursuant to the *Inspector General Act of 1978*, as amended. This review was not conducted according to generally accepted government auditing standards. Major contributors to this report include Patrick O'Malley, Director; Robert Greene, Audit Manager; Kristine Odina, Auditor-in-Charge; and John Jadick, Program Analyst.

Please call me with any questions at (202) 254-4100, or your staff may contact Patrick O'Malley, Director, at (856) 596-3822.



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