COLUMBIA CLASS SUBMARINE

Delivery Hinges on Timely and Quality Materials from an Atrophied Supplier Base

What GAO Found

The Navy’s schedule for constructing the first submarine of the new Columbia class is threatened by continuing challenges with the computer-aided software tool that Electric Boat, the lead shipbuilder, is using to design the submarine. These challenges will likely impede construction because the shipbuilder is late in completing design products used for building the submarine. To ensure construction begins on schedule, the Navy modified its design contract with Electric Boat to include an option for constructing the first two submarines and requested sufficient authority from Congress for fiscal year 2021 to exercise it. Navy officials stated, however, that the Navy’s budget request is lower than its current cost estimate, and it is not informed by an independent cost assessment. As a result, the program will likely need more funding to reflect the increased estimate.

Quality problems with supplier materials caused delays during early construction. These quality problems included missile tubes (depicted below) with defective welds. As the shipbuilders expand outsourcing to suppliers, quality assurance oversight at supplier facilities will be critical for avoiding further delays.

Quad Pack of Four Submarine Missile Tubes

Source: General Dynamics Electric Boat | GAO-21-257

However, the Navy has not comprehensively reassessed when to seek additional inspections at supplier facilities that could better position it to identify quality problems early enough to limit delays.