A Sourcing Strategy for Scaling Unmanned Mine Countermeasure Capabilities

• Advanced unmanned mine countermeasure (MCM) technology has recently been acquired using nontraditional DoD acquisition processes and a single detachment (a “company”) established and deployed to operational fleet forces due to the urgent mission needs. Operational needs require up to 16 additional companies. A critical issue in planning the creation of these company-sized units is the relative roles of contractors versus organic naval personnel in essential operations, support, and logistics roles. The current work develops an initial make/buy strategy for sourcing and scaling to increasing the Navy’s MC capabilities as quickly and efficiently as possible.

• Based on the performance and potential of initially developed UUV vessels, the massive perceived benefits of unmanned and autonomous vehicles, and the rapid rate of technology advances, the US Navy is using alternative acquisition processes and continuous improvement initiatives (Eckstein, 2017, Trevithick, 2017). Reorganization of the Office of the Secretary of Defense’s Acquisition Technology and Logistics organization has resulted in lowered authority for investment decisions to acquire materiel. Rapid prototyping and agile systems engineering approaches are being utilized as well as substitutes for traditional contract vehicles. The proposed research is relevant to at least four of the identified focal research areas. First, the research is directly focused on developing an acquisition strategy that supports rapid acquisition. Second, the investigation will improve the understanding of the industrial base by understanding its capabilities better. Third, the research may develop or support an innovative contracting strategy. Finally, the research will help improve the understanding of the role of innovation in improving defense acquisition outcomes.

• The proposed research will investigate one critical aspect of increasing MCM capacity, the acquisition strategy from internal and external sources. Insourcing/outsourcing (aka make/buy) decisions will have both short-term and long-term impacts on performance and cost. The research will collect data on MCM capabilities and needs, describe the various goods and services to be applied, apply an existing sourcing model to the acquisition of those goods and services, and use special conditions to develop sourcing recommendations.

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