

Dr. Alvin C. Murphy (Navy – NSWCCD / PEO IWS X)

Dr. Murphy is a Principal Engineer within the Integrated Combat Systems Department at NSWC Dahlgren. He has spent the past 32 years engineering, developing, testing, integrating, and assessing Warfare Systems and C4I for AEGIS, the Navy, and Joint Warfighter. In 1999, Dr. Murphy broadened his focus from individual platforms to strike force systems engineering as a plank holder in the development of the Navy's Distributed Engineering Plant (DEP) and Battle Force Interoperability Requirements (BFIR) and Metrics definition. Dr. Murphy currently leads combat system requirements and architecture development for Future Navy surface platforms and surface Navy Enterprise as the Chief System-of-Systems Engineer for the Navy's Integrated Combat System (ICS) within PEO IWS X. Additionally, Dr. Murphy leads surface Navy combat system DevSecOps initiatives and associated collaboration at Naval and DoD levels.

Education

Dec 2022 **Ph.D. Engineering Management and Systems Engineering.** Old Dominion University, Norfolk, VA
Jan 2007 **M.E. Systems Engineering.** George Mason University, Fairfax, VA
May 1991 **B.S. Electrical Engineering.** Virginia Tech, Blacksburg, VA

Work Experience

Jun 1991 – 1996 Naval Surface Warfare Center Port Hueneme Division – Dahlgren Detachment. Dahlgren, VA
2006 – Present Naval Surface Warfare Center Dahlgren Division. Dahlgren, VA

Selected Publications

Murphy, A., & Moreland, J. (2021). Integrating AI Microservices into Hard-Real-Time SoS to Ensure Trustworthiness of Digital Enterprise Using Mission Engineering. JIDPS, 25(1), 38-54. doi:10.3233/JID-210013

Richardson, David S; Slavin, Jerico; Lohr, Barret; Haas, Doug; Allen, Justin; Brandts, Kirk; Murphy, Alvin; Quinnan, Bob; Fitzsimmons, Jay. "Virtualization Roadmap: A Strategy for Deploying Virtualized Combat Systems to Surface Navy Ships." NSWCCD/TR-19/278, March 2020. March 2020.

Schroeder, Eric; Murphy, Alvin. "Modeling a Modular Integrated Laser System Kill Chain to Support Design and Integration Trades." NSWCCD/MP-19/108 (DTIC: AD1072569), February 2019.