NAVSEA Releases Naval Power and Energy Systems Roadmap

WASHINGTON – Naval Sea Systems Command (NAVSEA) released the Naval Power and Energy Systems Technology Development Roadmap, providing an evolutionary strategy to meet future weapon and sensor systems power requirements, June 26, the command said in a release of the same date.

Developed by the Electric Ships Office within Program Executive Office (PEO) Ships, the roadmap aligns electric power and energy system development with increasing warfighter power needs, enabling the U.S. Navy to expand maritime superiority over our adversaries.

"The U.S. Navy faces increasingly sophisticated threats," said Vice Adm. Tom Moore, commander, NAVSEA. "Our mandate is to maintain sea control by delivering a decisive advantage to the warfighter. We do that by ensuring our platforms have enough space, weight and power margin to adapt to future threats."

As existing U.S. Navy power and energy systems represent a century of combined private and public partnership, the roadmap establishes priorities to guide future research and development investments across the government, industry and academic enterprises; leveraging the best in science and

engineering; and allowing the Navy to more efficiently field future capabilities.

“Now is the time to invest in future naval power systems and capabilities to influence technology developments for tomorrow’s fleet,” said Stephen Markle, director, Electric Ships Office. “As new technologies evolve, it’s imperative we lead the innovation of power and energy architecture necessary for tomorrow’s sensors and weapons and deliver the Chief of Naval Operations’ mandate of as much power as we can afford to the warfighter.”

Power and energy systems offer the potential to provide revolutionary warfighting capability at an affordable cost. The Electric Ships Office’s efforts have helped conceptualize and field the power generation, electrical distribution and propulsion machinery on the DDG 1000 Zumwalt-class destroyers; and power generation and conversion systems on the DDG 51 Flight III. Future efforts include development of the Energy Magazine to enable pulsed high-power weapons and sensor systems for both back fit and forward fit applications, and evolution of Integrated Power Systems found on DDG 1000 and Royal Navy Type 45- and Queen Elizabeth-class ships by integrating energy storage and advanced controls as the Integrated Power and Energy System.