NAVSEA Leaders Discuss Advanced Technology Needs

WASHINGTON, DC (August 7, 2025) – Mr. Matt Sermon, Direct Reporting Program Manager, Maritime Industrial Base (MIB), participated in the Strategic Panel at the Maritime Innovation Forum: Advanced Manufacturing: Innovation for Maritime Readiness, that was held at the Capital Turnaround. (U.S. Navy photo by Laura Lakeway)

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WASHINGTON – Today, Naval Sea Systems Command (NAVSEA) leaders joined more than 360 industry representatives at the Maritime Innovation Forum to discuss the adoption of advanced technologies to improve shipbuilding and repair performance.

The Maritime Innovation Forum 2025 is a national initiative that showcases transformative technologies aligned with the U.S. Navy’s Advanced Manufacturing Strategy.

The forum included a keynote address from Vice Chief of Naval Operations, Admiral Jim Kilby as well as a panel discussion with senior leaders discussing the need to scale innovation. Tom Perotti, executive director and deputy chief engineer of NAVSEA engineering directorate, explained the importance of aligning advanced manufacturing solutions with authorities like Other Transactions (OTs) to quickly address capability gaps and readiness.

“To meet the speed and scale the Fleet demands, we must make advanced manufacturing a foundational capability across the entire shipbuilding enterprise,” said Perotti. “Through innovative tools and systems, scalable solutions and authorities like OTs, we are working to solve problems faster while building a more innovative and agile Navy.”

Matt Sermon, direct report program manager for the Maritime Industrial Base, echoed this forward-looking approach by highlighting recent successes with additive manufacturing.

“We’ve seen in just a few years that additive manufacturing can supply select parts for our ships now,” Sermon said. “What we want to see in a few more years are entire shipyards, workforce and supply chains integrated by advanced manufacturing processes, technologies and of course, AI.”

Throughout the forum, NAVSEA leaders discussed case studies where OT authorities have been successfully leveraged. Since 2020, NAVSEA has awarded more than 600 OT agreements to expedite needed ship construction, maintenance and modernization solutions. NAVSEA’s OT successes shared at the forum included the following:

- LM2500 Gas Turbine Navy Common Core Controller (GTNC3): With over 300 LM2500 engines powering the surface Fleet, GTNC3 standardizes the control system across platforms. Developed under the Maritime Sustainment Technology and Innovation Consortium (MSTIC) OT, GTNC3 addresses

longstanding variability in control architecture and strengthens long-term sustainment.

- Strike Up/Down System (SUDS): This innovation supports rearming the MK41 Vertical Launch System at sea. SUDS was developed under the DoD Ordnance Technology Consortium OT and aims to reduce the need for ships to return to the port for rearming and preserve combat readiness.

- High-Density Ribbon Fiber Optic Cable and Shipboard Tooling: This initiative increases fiber density by 12-fold, while maintaining compliance. Developed under the National Shipbuilding Research Program OT with contributions from Ingalls Shipbuilding, Newport News Shipbuilding and others, it enhances shipboard data transfer while simplifying installation.

These projects exemplify how OT agreements fill critical technical gaps across NAVSEA’s acquisition portfolio, delivering faster, more affordable and flexible solutions to the Fleet.

During the afternoon of the forum, there were presentations about innovative technologies in the areas of additive manufacturing and 3D printing, robotics and automation, coatings and surfaces, as well as next-generation digital tools, materials and processes. These presentations showcased high-impact technology that aligns with the Navy’s modernization goals and industrial expansion priorities.

Through these collaborative efforts, the Maritime Innovation Forum illustrated how technological innovation, alternative agreements and partnerships are directly strengthening the Navy’s maritime readiness and industrial base.

In closing remarks, Rear Adm. Pete Small, NAVSEA’s chief engineer and Warfare Centers commander, reiterated the importance of collaboration and emphasized NAVSEA’s commitment to scaling innovation that delivers results.

“This forum is a testament to what we can achieve when we come together to collaborate on innovative, scalable and real-world solutions to today’s most pressing shipbuilding and sustainment challenges,” said Small. “The demand is here, and NAVSEA is driving it forward with the help of partnerships, innovative technology and advanced manufacturing.”