Member Day Testimony on FY2025 National Defense Authorization Act (NDAA)
House Committee on Armed Services
Congressman Darren Soto (FL-09)
April 11, 2024

Chairman Rogers, Ranking Member Smith, thank you for allowing me to testify before the Committee about my priorities for the National Defense Authorization Act of 2025.

My priorities for inclusion in the NDAA include semiconductor manufacturing and research, investment in modeling and simulation capabilities, service collaboration regarding the development of Florida's spaceport, research and development for hypersonic capabilities, and research and development for simulated clinical environments.

Semiconductor Manufacturing and Research:

I urge the committee to support the highest funding levels possible for domestic semiconductor advanced packaging production through the DoD RESHAPE Program, as well as funding for research into new, energy efficient semiconductor manufacturing capabilities.

The development of domestic semiconductor manufacturing is key to ensuring U.S. national security. Trusted domestic manufacturing processes help guarantee the integrity of both commercial and military systems, as domestic manufacturing can provide a supply of trusted system components for both the U.S. and its allies. In addition, innovation in semiconductor manufacturing bolsters our leadership in cutting edge alternatives to system components produced or controlled by U.S. adversaries. New manufacturing methods, including semiconductor advanced packaging processes, hold promise for defense electronics systems by enhancing semiconductor performance, density, and power efficiency.

To ensure U.S. competitiveness in semiconductor manufacturing, I urge the Committee to authorize the highest funding levels possible for the Advanced Secure Packaging (RESHAPE) program within the Industrial Base Analysis and Sustainment's Program. DoD's RESHAPE Program supports the nation's only trusted, domestic semiconductor advanced packaging production program. I also urge the Committee to support research into new, innovative energy efficient chip fabrication processes to further support U.S. leadership in semiconductor manufacturing.

New Modeling and Simulation Capabilities:

I urge the Committee to support the development of new modeling and simulation capabilities. As technological advancements lead to increased battlespace complexity, the development of new capabilities in this area are essential to national defense. Current modeling and simulation

tools do not reflect the realities of today's operating environment. To prepare for new battlespace realities, we need new capabilities that accurately reflect our adversaries' forces and systems, including adaptive automated computer-generated forces. New capabilities under development in Orlando, Florida at the University of Central Florida (UCF) will enable training environments that allow U.S. and allied forces to train under more realistic conditions.

Collaboration for Development of Florida Spaceport:

I urge the Committee to encourage collaboration between the Air Force, Space Force, Navy, Army, Port Canaveral, Coast Guard, and Space Florida to coordinate infrastructure improvements at Port Canaveral, Florida.

U.S. national security is increasingly tied to the expansion of industrial launch and recovery capabilities. While these capabilities can largely be attributed to recent innovation in the commercial space marketplace, they also provide the military and intelligence community with a competitive edge against key adversaries like China and Russia. Launch and recovery capabilities also support NASA exploration and the broader commercial satellite enterprise that supports government missions. Most of the new launch vehicles that rely on this capability depend on a maritime component for the recovery of launch boosters. Cape Canaveral supports a sizeable portion of the nation's commercial and military launches and currently has some of the required infrastructure in place to support launch and maritime recovery. However, current infrastructure is not equipped to support the projected increase in military and commercial launch and recovery missions. Space Florida, a special district of the state of Florida, in partnership with the U.S. Space Force, NASA, the Navy, Coast Guard and Port Canaveral recently launched a feasibility study to develop strategic recommendations for wharf infrastructure improvements and the design of a transload wharf facility. Once this study is completed, it is imperative that the Air Force, Space Force, Coast Guard, Navy, and Army continue ongoing collaboration with Port Canaveral and Space Florida to ensure critical infrastructure improvements to Florida's Space Coast.

Research and Development for Hypersonic Capabilities:

I urge the Committee to support research and development for hypersonic capabilities. Russia and China support a number of hypersonic weapons programs. It is imperative to national defense that the U.S. keep pace and surpass our strategic competitors in this space. Programs like UCF's Propulsion Lab are at the forefront of research essential to hypersonic development, including research into detonation-based propulsion. This Air Force funded program presents a pathway to high-hypersonic (Mach 8 – 17) powered flight. Investment in this type of research is key to ensuring U.S. competitiveness in hypersonics.

Research and Development for Simulated Clinical Environments:

I urge the Committee to support research for simulated clinical environments, like those currently in use at the SimVet Center in Orlando, Florida. These environments offer new opportunities to test clinical software applications, test medical devices, and to optimize patient care. Specifically, these environments offer opportunities to ensure the safety and efficacy of healthcare solutions prior to their implementation. This technology holds great promise for improving healthcare outcomes for service members and their families.