Newport News Shipbuilding Part of 4th Industrial Revolution

Newport News Shipbuilding contractor Andrew Blair, from Birmingham, Alabama, cuts into the deck aboard the aircraft carrier USS John C. Stennis (CVN 74), in Newport News, Virginia, June 17, 2021. *U.S. NAVY / Mass Communication Specialist Seaman Thomas Willis*

NATIONAL HARBOR, Md. – The advances in shipbuilding technology and investments in facilities, training and tools is helping Newport News Shipbuilding (NNS) – a Huntington Ingalls Industries (Booth 1323) sector – keep up with the demands of the present and prepare for the future, according to its president.

"We are busier than we have been in my 34 years [with NNS], said NNS President Jennifer Boykin, speaking to reporters Aug. 2 at the Navy League's Sea-Air-Space Expo in National Harbor, Maryland.

NNS currently is building or overhauling 34 ships, including 27 at the shipyard in Newport News, Virginia, and 14 elsewhere at other sites.

That capacity is enabled by new technology, including additive manufacturing, laser scanning, augmented reality, 5G shipyard connectivity and data analytics.

Boykin said NNS has the capability to use additive manufacturing to produce components of more than 600 pounds. The capability is awaiting certification from the U.S. Navy to use on its ships.

She also pointed out that the third Gerald R. Ford-class aircraft carrier, the future USS Enterprise (CVN 80), is the

first aircraft carrier being built by workers using digital tablets.

With these new technologies, Boykin noted that “many refer to this as the Fourth Industrial Revolution.”

NNS has invested $1.9 billion in physical plant infrastructure since 2016. Those funds have been devoted to submarine facility expansion, a joint manufacturing and assembly facility, a new 310-ton crane replacement, machine shops, foundry and steel fabrication improvements, new automation, and digital infrastructure throughout the shipyard.

NNS builds nuclear-powered ships including Ford-class aircraft carriers and – teamed with General Dynamics Electric Boat (Booth 1023) – Virginia-class attack submarines and Columbia-class ballistic-missile submarines. NNS also conducts refueling and complex overhauls of Nimitz-class aircraft carriers and depot-level maintenance and refueling of some Los Angeles-class attack submarines.

The shipyard is on track to deliver two Virginia-class submarines and re-deliver the Los Angeles-class attack submarine USS Helena to the fleet in 2021.

Asked about what would be needed in terms of shipyard investment to increase capacity to build three Virginia-class submarines per year if so funded, Boykin said significant investment across the submarine construction enterprise – including the supply chain – would be required.