Navy Approves Northrop Grumman's New Navigation Capability for Fleet Deployment

Sailors stand watch on the bridge aboard the Arleigh Burke-class guided-missile destroyer USS Roosevelt (DDG 80) as the ship conducts a replenishment-at-sea with the dry cargo and ammunition ship USNS William McLean (T-AKE 12), Oct. 1, 2022. *U.S. NAVY / Mass Communication Specialist 2nd Class Danielle Baker*

CHARLOTTESVILLE, Va.— The U.S. Navy has approved Northrop Grumman Corporation's new Electronic Chart Display and Information System (Navy ECDIS) for deployment to its fleet, the company said in an Oct. 5 release.

The Navy's Operational Test and Evaluation Force (OPTEVFOR) issued a formal determination that Navy ECDIS is

"operationally suitable, operationally effective and cyber survivable." This new capability will be a core element to all U.S. Navy bridge and navigation systems.

Navy ECDIS processes and displays multiple chart formats including digital nautical charts developed by the National Geospatial-Intelligence Agency. The system tracks targets from the vessel's navigation radar, enabling creation of route plans, automation of plan execution and monitoring progress along the route. Safety checking functions analyze chart data and radar targets to warn of hazards to safe navigation while underway.

"Our agile approach to developing Navy ECDIS enabled software to be developed in sprints, with customer input at every step of the way," said Todd Leavitt, vice president, naval and oceanic systems, Northrop Grumman. "This workflow allowed the Navy to see and evaluate results of their input as they came up and saved them both time and money."

Navy ECDIS will provide the next generation of navigation capabilities to the fleet including compliance with the standard for mission interoperability with NATO allies, implementing cybersecurity requirements as well as enhancements to the human machine interface to simplify operation, improve situational awareness and increase the safety of navigation.

OPTEVFOR's approval of Navy ECDIS is the culmination of nearly a year of rigorous government testing. The test and approval process began with sea trials on the amphibious assault ship USS Kearsarge (LHD 3) and continued with evaluation activities at Naval Surface Warfare Center, Philadelphia Division (NSWCPD).

The Navy has directed the Nimitz-class aircraft carrier USS Theodore Roosevelt (CVN 71) to be the first ship in the fleet to receive Navy ECDIS. NSWCPD will perform the installation

this October. The Navy plans to install the system on 115 ships in the next three years, demonstrating the power of scalability of software defined systems such as Navy ECDIS.

Northrop Grumman developed and fielded the Navy's current ECDIS software, Voyage Management System, which has since become a core element of the bridge and navigation system on every U.S. Navy ship and submarine. Northrop Grumman's broad range of navigation systems provides precise, survivable, secure, resilient and agile solutions for sea, land, air and space.