Navy, Raytheon Complete First Dual-Target Test of Ford-Class CVN Integrated Combat System



The aircraft carrier USS Gerald R. Ford (CVN-78) is maneuvered by tugboats during a turn ship evolution in the James River. Gerald R. Ford is undergoing its post-shakedown availability at Huntington Ingalls Industries-Newport News Shipbuilding. (U.S. Navy/Mass Communication Specialist 2nd Class Ryan Seelbach

TEWKSBURY, Mass. – Raytheon Co.
and the U.S. Navy completed the final developmental test of the latest
generation of the Ship Self-Defense System, or SSDS, Integrated Combat System
for the USS Gerald R. Ford (CVN-78), the company announced in a release.

The test was conducted off the
coast of California from the Navy's unmanned Self-Defense Test Ship simulating
a scenario CVN-78 may encounter once deployed.

During the raid scenario
exercise, two anti-ship missile surrogate targets were located, classified,
tracked and engaged using the SSDS Integrated Combat System adapted for Gerald
R. Ford.

"This successful
dual-target test demonstrates the maturity of the Ship Self Defense System ICS

and paves the way for operational testing to begin," said Mike Fabel,
Raytheon's SSDS program manager. "SSDS is a critical capability that
enables CVN-78 to defend herself and her crew against current and emerging
threats."

The Raytheon Ship Self-Defense
System ICS includes:

- Dual Band Radar: This technology searched for, located and tracked the targets. DBR then provided uplink and radar illumination to the Evolved SeaSparrow Missile to support missile guidance.
- Cooperative Engagement Capability, or CEC: The capability validated and processed the Dual Band Radar data for SSDS. CEC is responsible for providing a single, integrated air picture by fusing data from multiple sensors to improve track accuracy.
- Ship Self-Defense System: SSDS processed the CEC data, classified the targets, determined the appropriate engagement ranges, passed launch commands to the interceptor missiles, and scheduled Dual Band Radar support for the engagements.
- Evolved SeaSparrow Missile and Rolling Airframe Missile: Successfully engaged and defeated both targets using live and simulated interceptors.

The Ship Self-Defense System
ICS for CVN-78 has now successfully engaged three of three targets over the
course of its first two test exercises.

Proven and deployed, SSDS is an open, distributed combat management system in service on U.S. carriers and amphibious ships, including CVN, LSD, LPD, LHA and LHD classes. SSDS Mk2 is the premier self-defense system for the Navy. SSDS is integrated with Raytheon's Cooperative Engagement Capability for the seamless extraction and distribution of sensor-derived information. This further enhances each ship's anti-air warfare capability through sharing of available data to all participating CEC units, improving situational awareness, increasing range, and enabling cooperative, multiple, or layered engagement strategies.