Raytheon Reaches Major Testing Milestone on First SPY-6 Radar Array

ANDOVER, Mass. – Raytheon's Missiles & Defense unit has finished near-field range testing of the first AN/SPY-6(V)1 radar array, signaling its readiness to be packed and shipped for installation on a future U.S. Navy Arleigh Burke-class destroyer, the USS Jack H. Lucas, the company said in a release.

The 14-foot by 14-foot modular array will deliver integrated air and missile defense and air-defense capabilities to Flight III guided missile destroyers and a total of seven types of Navy ships.

"The goal of near-field range testing is to increase integration speed, drive out risk and ensure SPY-6 is primed for installation," said Scott Spence, senior director of Naval Radar Systems. "When SPY-6 radar arrays leave our radar development facility, they are ready to defend the surface fleet."

Before leaving the development facility, all SPY-6 arrays undergo extensive testing that includes:

- Operational health evaluation of more than 5,000 transmit and receive radiating elements.
- Alignment and calibration of nearly 150 subarray channels and 5,000 radar elements.
- Collection and validation of over 42,000 "golden database" parameters that allows automatic recalibration of the array during at-sea maintenance.
- Collection, analysis and verification of over 300 transmit and receive array beam patterns.

Raytheon Missiles & Defense has invested more than $500 million in infrastructure and capacity enhancements, including advanced automation technology, for SPY-6 since the program’s inception. Additional construction on expanded production areas dedicated to transmit/receive integrated microwave modules and radio frequency heads – key radar components – will be completed this year.