

### **ACT-IV Digital Array Workshop**

Northrop Grumman Corporation delivered the Arrays at Commercial Timescales Integration and Validation (ACT-IV) system to the Defense Advanced Research Projects Agency (DARPA) and the Air Force Research Laboratory (AFRL). ACT-IV is one of the first multifunction systems based on a digital AESA using the semiconductor devices developed on the DARPA Arrays at Commercial Timescales (ACT) program. By applying the flexibility of the digital AESA, the ACT-IV system can perform radar, electronic warfare, and communication functions simultaneously by controlling a large number of independent digital transmit/receive channels. The agility of the digital AESA was demonstrated during multiple demonstrations at the Northrop Grumman test range and will enable future warfighters to quickly adapt to new threats, control the electromagnetic spectrum, and connect to tactical networks in support of distributed operations. The ACT-IV system will be a foundational research asset for the Department of Defense's multi-service research initiative for digital radars and multifunction systems. This initiative will support a community of researchers that are developing new algorithms and software to explore the possibilities of next-generation digital AESAs for national security missions. This workshop will cover the ACT-IV system and ongoing mode development activities at AFRL.