

**MONDAY MORNING GROUP OF WESTERN RIVERSIDE COUNTY
ANNUAL ADVOCACY TRIP – WASHINGTON, DC
APRIL 20-23, 2026**

SUPPORT FOR THE AIR FORCE OFFICE OF SCIENTIFIC RESEARCH

ISSUE: The United States faces intensifying strategic competition in quantum technologies, electronic warfare (EW), and high-performance computing critical to national defense. While the Air Force Office of Scientific Research (AFOSR) has made foundational investments in superconducting electronics, targeted funding is required to transition these advances from academic research into deployable defense capabilities. Without a plus-up, U.S.-developed superconducting quantum technologies risk stalling in the transitional “valley of death,” delaying warfighter integration and ceding advantage to global competitors.

ACTION: The Monday Morning Group urges Congress to provide a \$5 million FY27 appropriations plus-up to the AFOSR under RDT&E, Air Force, PE 0601103F (University Research Initiatives) to support the University of California, Riverside’s (UCR) project on Superconducting Electronics for Precision Quantum Standards, Electronic Warfare, and High-Performance Computing.

This funding will:

- Accelerate transition of superconducting quantum technologies into operational defense applications.
- Advance precision measurement, secure communications, and next-generation EW capabilities.
- Enable energy-efficient, high-performance computing architectures for AI-driven national security needs.
- Strengthen collaboration between academia, defense agencies, and industry to speed technology deployment.

BACKGROUND: UCR—through its California Institute for Telecommunications and Information Technology (Cal-IT2)—is advancing next-generation superconducting electronics for quantum standards, EW, and AI-enabled high-performance computing. Building on prior AFOSR investments, this initiative focuses on high-transition-temperature Josephson-based electronics offering substantial advantages in speed, energy efficiency, and precision measurement.

These technologies support:

- Precision metrology and quantum standards for defense calibration systems.
- Secure communications and sensing in contested environments.
- Next-generation electronic warfare capabilities.
- Advanced computing architectures enabling AI and national security applications.

Defense and industry partners include Naval Surface Warfare Center – Corona Division, Northrop Grumman, HRL Laboratories, General Atomics, and Raytheon

A principal component is the establishment of a satellite laboratory at the NSWC Corona Tech Bridge, enabling direct collaboration with Navy scientists and accelerating integration into defense systems. This effort aligns with national initiatives such as the Inland Empire Quantum Initiative and the California DREAMS Hub, strengthening regional innovation ecosystems tied to Department of Defense priorities. By investing in this program, AFOSR will reinforce U.S. leadership in superconducting quantum electronics, accelerate delivery of operational capabilities to the warfighter, and strengthen the domestic defense industrial base.