

Wireless Research Center Rapidly Expanding Government Technology Innovation and Support for Clients

Government Technology Veteran Paul Allan Sadowski Brings Extensive Federal and State Government Experience to WRC team

WAKE FOREST, N.C. (Jan. 27, 2020) – The Wireless Research Center continues to expand applied research and development services for state and federal government and has added a government technology visionary and former communications advisor to the Pentagon, Paul Allan Sadowski, to the team of senior engineers.

The Wireless Research Center (WRC) is an independent, private nonprofit dedicated to applied research driving communications innovation. The WRC has the expertise and equipment to provide research, development, engineering, and testing of antenna, radio frequency and other wireless technologies as an International Organization for Standardization (ISO) accredited organization.

In September, the National Science Foundation announced a \$24 million grant to the WRC and N.C. State University to establish The Aerial Experimentation and Research Platform for Advanced Wireless ([AERPAW](#)) – the nation’s third wireless 5G testbed platform. The WRC will lead the deployment and operation of testbed sites beginning in Raleigh and Cary, part of North Carolina’s Research Triangle Park region. The WRC will provide access to its unique services and capabilities including applied research, engineering and certified testing. WRC founder and Chief Executive Officer Gerard Hayes is the AERPAW business development manager and leads the partnerships with commercial companies. WRC Senior Staff Engineer Mike Barts serves as the testbed deployment and operations manager, and WRC Senior Architect Asokan Ram serves as the testbed deployment engineer.

The AERPAW network platforms are designed by industry and academic wireless research communities to explore new wireless devices, communication techniques, networks, systems and services that will revolutionize the nation's wireless systems. Today’s conventional networks use fixed nodes on the ground to enable 4G signals to connect to wireless devices. On the AERPAW platform, nodes will be mobile, including airborne, with the ability to transmit and receive radio waves from user devices while moving. For example, in the aftermath of a natural disaster such as a hurricane, existing cellular networks may be damaged. Mobile aerial base stations can be positioned to provide wireless coverage to victims and first responders.

Earlier this year, the WRC was designated as a supplier for [The Ascendancy Group](#) (TAG) supporting U.S. Department of Defense programs, became a contributor to both a Phase I Small Business Technology Transfer (STTR) for the U.S. Air Force and a Phase 1 Small Business Innovation Research project for the U.S. Special Operations Command (SOCOM). The WRC is also a partner with [Edmond Scientific Company](#) on a \$46.75 million U.S. Army contract. In addition, the WRC joined OTA consortia used by federal agencies for advancing research and development – the Information Warfare Research Project (IWRP), the C5 Consortium and the National Spectrum Consortium.

WRC Senior Engineer John Swartz leads collaboration with the federal government. He joined the WRC with more than 30 years of experience in electrical engineering performing research and development for defense, medical, industrial and university labs, including Booz Allen Hamilton and RTI International.

“John joined us as visionary in defense communications and is leading our team collaborating with a growing list of customers for development of government and defense communications systems,” said WRC founder and CEO Gerard Hayes. “This was part of our vision when we founded the WRC.”

Another partnership with UNC-TV Public Media North Carolina and the N.C. Department of Information Technology is a public safety research center developing and testing new products and services for first responders, beginning with innovative applications for ATSC 3.0 Next Generation TV to improve public safety response.

Sadowski’s Experience an Ideal Fit

Sadowski’s government career includes U.S. Department of Defense (DoD) and Public Safety technology which bolsters many WRC initiatives as a senior engineer at the WRC. He is a co-inventor for Paging Plus - recently recognized by the National Association of Broadcasters for TV Broadcast Innovation. He is also a co-inventor for a drone communications and sensor system that can rapidly deploy long range data communications. He recently served as communications advisor for a U.S. Navy project to monitor underwater acoustic information.

During his Air Force career, he served as a cryptographic technician for the first work center to receive the Strategic Air Command’s outstanding maintenance rating, served as a RADAR R&D engineer for Next Generation Weather Radar (NEXRAD), and as the site bed down officer for the first Tactically Deployed National Exploitation System. He invented 5D – a revolutionary DoD Secondary Image Dissemination (SID) as well as a bandwidth compression method that transformed DoD "off-tether" airborne IMINT for the U-2. He finished his USAF career with concurrent roles as both a HH-60G (Pave Hawk) Flight Test and Evaluation Engineer and Flight Commander within the Joint Combat Search and Rescue Joint Test and Evaluation.

His North Carolina state government career included: Director of Infrastructure Planning for the N.C. Department of Information Technology’s Broadband Infrastructure Office (heading up the First Responder Network), IT Manager for N.C. State Highway Patrol. and Cyber Security Lead for the N.C. Department of Crime Control and Public Safety.

About the Wireless Research Center

The WRC is a nonprofit organization supporting clients globally with unique applied research, engineering services and testing for communication technologies from in-body sensors and medical devices to satellites and space exploration. The WRC accelerates the rate of scientific innovation as a network design and Internet of Things (IoT) consultant and certified testing facility for the CTIA and many wireless network providers. The WRC fosters innovation and

collaboration among commercial partners, industry groups, academic institutions and research organizations. For more information, visit www.wrc-nc.org

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