

Radiance Technologies' patented WeaponWatch® technology is used on the Army's AH-64D Apache helicopter (pictured here). The technology can display threat type and location, cue imaging systems and weapons, and support a common operating picture in real-time using existing tactical radios and other military communications systems.



RADIANCE TECHNOLOGIES, INC.

The story reads almost like a case study. How does a three-person team leverage ingenuity and government funding to become a major U.S. defense prime contractor signing billion dollar contracts? Radiance Technologies has the answer. The key is the Alabama-based company's ability to design, develop, fabricate, integrate, and test components and systems. This end-to-end capability, supported by a strong operational team, enables Radiance to provide innovative solutions to not only the Department of Defense (DOD), but to customers across the U.S. government. Because of this, Radiance has experienced significant growth since its founding in 1999.

PHASE III SUCCESS

Yearly sales exceed \$115M; Radiance was awarded an IDIQ contract with the U.S. Air Force totaling nearly \$1 billion in 2014.

AGENCIES

DOD, DHS, NASA, USDA

SNAPSHOT

Huntsville-based Radiance Technologies is an employee owned, engineering and technology company providing solutions to the Department of Defense. Went from 3 employees in 1999 to 454 employees today across the globe, including 180 in Alabama.

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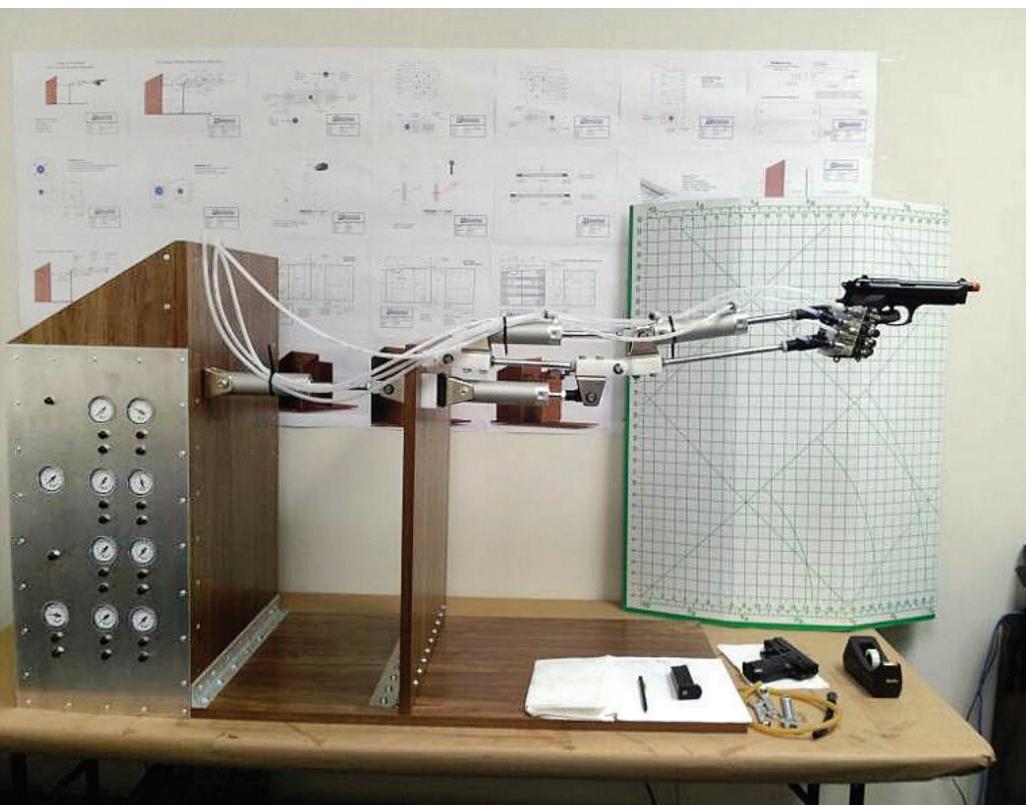
"Our first work involved collecting data from sensors," explains William Bailey, Strategic Initiatives Analyst for Radiance Technologies. "We evolved into sensor exploitation; we provide Intel analysis and algorithms over a large variety of sensors; perform R&D, and create software applications to help analysts use sensors more efficiently. We integrate prototype systems where sensors are central components, and reverse engineer when necessary."

Sensors continue to be a critical core competency for Radiance, though its broad expertise has enabled the company to venture into new territory. The company is currently working with the Army to implement a broad area hostile fire sensing architecture that uses lower cost discrete sensors, which do not require cryogenic cooling assemblies, and therefore greatly reduce the life cycle cost of hostile fire sensor payloads for both manned and unmanned aerial vehicles. One of Radiance's largest customers is U.S. Army Intelligence & Security Command (INSCOM), for which the company provides around 160 analysts to date. Over at the Department of Homeland Security (DHS), Radiance is designing, developing and testing a 6 degree-of-freedom (DOF) device, which will fully simulate the recoil reactions of a wide range of human shooters, handguns, and ammunition types.

At NASA, Radiance is helping the agency to integrate three unique energy harvesting technologies that utilize the company's existing research strengths that are of interest and utility to NASA applications and environmental conditions. By developing multiple technologies, NASA will soon be able to harvest energy from multiple waste energy sources, including environmental vibrations, thermal energy, and solar flux. With no prior experience with NASA, Radiance beat out large, incumbent contractors to win the Marshall Space Flight Center's (MSFC) new Engineering Solutions and Prototyping (ESP) full and open Delivery Order contract worth \$350 million. Radiance hopes to evolve its capabilities through this award as well as increase its capabilities for its sensor solutions.

Radiance's relationship with its government clientele began with several Small Business Innovation Research (SBIR) contracts, both with the DOD and the United States Department of Agriculture (USDA) that gave the company the platform to showcase its capabilities. The company soon became the Systems Engineering and Technical Assistance Contract (SETAC) Prime Contractor of Choice through the U.S. Army Space and Missile Defense Command and the U.S. Army Forces Strategic Command – a contract with a ceiling of \$997 million that extends through 2016. In 2012, Radiance was awarded a \$300 million Agile Cyber Technology contract through the Air Force Research Lab (AFRL) to develop cyber hardware and software tools that would allow the fleet to dominate in the cyber environment. With 86 Phase I and II SBIR projects awarded since 2001, the company has perfected the art of leveraging government funds to commercialize its projects.

"We have this broad array of capabilities, but SBIR has been critical for us in that it allows us to take a concept and prototype and integrate it, as well as perform the testing and evaluation," says Bailey. "We can carry that all the way through to a fielded prototype for our customer, and no other small businesses can do that without this support. It has allowed us to provide diverse solutions for our customers."



Radiance is currently working on an SBIR Phase II project with the Department of Homeland Security (DHS) to design, develop and test a 6 degree-of-freedom (DOF) device, which will fully simulate the recoil reactions of a wide range of human shooters, handguns, and ammunition types.

SBIR was the driving force behind one of Radiance's most advanced technologies - WeaponWatch® - which provides a highly reliable, wide area surveillance capability for the real-time detection, classification, and location of direct and indirect hostile weapon fire with a very high probability of detection and a very low false alarm rate. WeaponWatch is currently in use on the Army's AH-64D Apache helicopter. In late 2014, Radiance announced its largest contract to date – serving as one of three prime contractors on a \$960 million indefinite-delivery/indefinite-quantity contract for services in support of the Advanced Technical Exploitation Program II (ATEP II). Radiance, along with its Dayton partners will perform research, development, system sustainment, and intelligence production activities utilizing geospatial-intelligence and non-nuclear measurement and signature intelligence data at the National Air and Space Intelligence Center (NASIC), at Wright-Patterson Air Force Base outside of Dayton, Ohio. Approximately 50 new employees were hired near Wright-Patterson to accommodate this contract.

Looking to the future, Radiance wants to continue its research and development on its sensors for use in weapon signatures, from small arms fire to missiles. By figuring out how to collect various signatures, Radiance hopes to use this information to develop an entire host of technologies that can detect weapons systems and provide decision makers with the intelligence needed to respond appropriately. The company credits its location in the great state of Alabama as a driving factor in its recent success.

"You have an amazingly diverse array of military customers, as well as NASA, right here in Huntsville," adds Bailey. "There is a huge demand for these technologies, along with very supportive congressional leadership. Add that to the low cost of living and the high quality of life, and you have the perfect environment for innovation."