



News

For Immediate Release

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Syntonics Wins New Feasibility Study for Ultra Wideband, High Power, Agile Antenna

COLUMBIA, MD. May 1, 2006 . . . Syntonics LLC, based in Columbia, Md., announced today it has been awarded a Phase I Small Business Innovation Research (SBIR) contract with the U.S. Naval Air Warfare Command's Weapons Division (NAWCWD). Syntonics is investigate the feasibility of applying its Pixel-Addressable Reconfigurable Conformal Antenna (PARCA) invention to replace or supplement existing antennas used on the AN/ALQ-99 Tactical Jamming System (TJS).

The PARCA concept is highly suitable for the high power ALQ-99 application, which needs agility in frequency, gain, steering, and polarization. PARCA uses conductive pixels that can be turned "on" or "off" to rapidly reconfigure a patch array's operating frequency(ies), aperture gain(s), beam pointing direction(s), and beam polarization(s). This project focuses on millimeter-scale pixels actuated with MEMS-like techniques. This approach leads to thin antenna panels, approximately 5 mm thick, which is ideal for mounting on the sides of existing ALQ-99 electronics packages.

The AN/ALQ-99 Tactical Jamming System intercepts and automatically processes radar signals and power manages the system's transmitters to effectively jam large numbers of diverse radar threats with very high effective radiated power (ERP). Since the deployment in the early 1970's on the EA-6B Prowler aircraft, the system has undergone multiple upgrades. The Navy is currently preparing to field this system aboard the EA-18G "Growler" Airborne Electronic Attack (AEA) aircraft.

Syntonics is performing this work teamed with The ElectroScience Laboratory (ESL) of The Ohio State University in Columbus, OH. The ElectroScience Laboratory is internationally recognized for its expertise in antenna design and electromagnetic theory.

Syntonics designs, develops, and manufactures specialty military RF communications equipment and accessories, notably RF-over-fiber products and innovative antennas. For more information on Syntonics and its products, please see the company's website at www.SyntonicsCorp.com.