Air Force evaluates Bodkin Design & Engineering's spectral imaging technology for hypersonic missile testing

BOSTON, MASSACHUSETTS, UNITED STATES, May 13, 2024 /EINPresswire.com/ -- Bodkin Design & Engineering, LLC (BD&E) has been awarded a $180,000 Phase 1 Small Business Innovation Research (SBIR) contract to develop an imaging sensor that can accurately measure the temperature of materials in the hypersonic environment. This sensor utilizes a broadband hyperspectral imager and emissivity matching algorithm to enable mapping of surface temperatures over 6000°K. BD&E's solution will create accurate temperature maps 60 times a second during a hypersonic test.

Hyperspectral Imager for Precision Radiometric Surface Temperature Measurement

This device will utilize the Precision Radiometric Surface Temperature Sensor (PRST) initially developed by BD&E for high-energy laser missile defense. This technology has previously found applications in studying heat shields for NASA and metal milling processes at NIST. To meet the Air Force requirements, a broadband hyperspectral imaging system will be developed that will cover the visible through the midwave infrared.

The Air Force has a long history of investing in small businesses to expand technology for defense and security. BD&E is specifically qualified for this project, having worked with NASA, the Air Force, the Navy, and the Army to create thermal cameras, polarimetric imagers, and hyperspectral sensors. This project will expand BD&E's portfolio of hyperspectral products with the introduction of this extremely broadband instrument.

Bodkin Design and Engineering, LLC has been providing concept development, and design and build services since 1992. Headquartered in Newton, Massachusetts, the company serves the

international OEM, commercial, military, and research communities. Specializing in machine vision and imaging spectroscopy, BD&E has overseen the successful introduction of products ranging from miniature infrared cameras to dental imagers and instruments for drug discovery. To learn more, visit the website at www.bodkinspectral.com.

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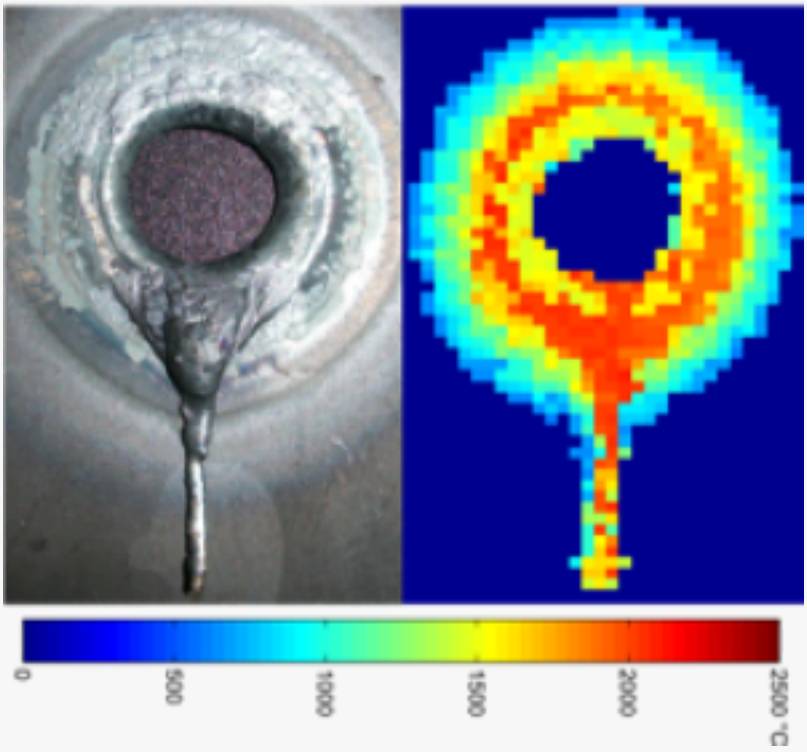

Thermal Mapping of Laser Interaction