

Matrix Research Capabilities Statement

Matrix Research, in response to the IARPA Biometrics Recognition and Identification at Altitude and Range (BRIAR) opportunity, is looking for teaming partners specializing in whole body biometrics and gait recognition to add to their existing capabilities.

This effort is being led by Dr. Mary Ann Harrison (see teaming form for contact information), who previously led three different DoD biometrics efforts at Matrix's partner, High Technology Foundation in Fairmont WV. These efforts included:

- Tactical Analysis of Video Imagery (TAVI), which was a face recognition-based system that extracted human social networks from observations of human interactions.
- Target Recognition with Ultra-Light Man-Portable Systems (TRUMPS), which provided face recognition in combat settings for dismount soldiers.
- Delivery of a set of face recognition systems to a three letter civilian agency, to support law enforcement operations in urban environments.

These technologies were assessed and demonstrated at 13 different military and Department of Homeland Security (DHS) exercises, including Empire Challenge 2009 and 2010; US SOCOM TNT exercise 2011-4, 2011 II Marine Expeditionary Force demonstration; US Army Deployable Force Protection TSOA evaluations 2012-1, 2012-4, 2013-2, 2013-4; two 2012 US Army Integrated Base Defense demonstrations; 2012 and 2013 Deployable Force Protection technical evaluations; and a DHS face recognition evaluation at the 2012 Mock Prison Riot.

Matrix and Dr. Harrison plan to leverage this experience, as well as Matrix's track record of priming large DoD research and development contracts, to assemble a successful team in response to BRIAR.

About Matrix Research

Matrix Research is a small, employee-owned research and development company specializing in advanced signal processing, non-cooperative target identification/tracking, and radar systems. Of the company's ~90 employees, approximately 65% have graduate degrees in their fields, and 37% have Ph.D.s in engineering and scientific disciplines. Ninety-five percent of the company's employees hold security clearances. Matrix's current primary defense customers include AFRL, DARPA, and the US Air Force; and, the company is the prime contractor for 90% of its contracts. The company's newly-built main operating site in Dayton, OH has over 52,000 sq ft of office and laboratory space, including fabrication, electronics, secure areas, as well as a machine shop. Matrix Research also has satellite offices in Ft. Walton Beach, FL, Reno, NV, and Wright-Patterson Air Force Base, OH.