



Bevilacqua

Research Corporation

Quality... Service... Commitment...

Corporate Overview

Bevilacqua Research Corporation (BRC) is a Service Disabled Veteran Owned, Small Business (SDVOSB) with corporate headquarters in Huntsville, Alabama. BRC was established in 1992 to provide innovative, leading edge technology products and services to government and private sector clients. We have provided expert support to the Department of Defense and other government agencies for over 26 years, successfully performing over 110 contracts with no negative performance assessments. Support areas include RDT&E support, systems engineering, engineering, software development, and technical assistance for intelligence and electronic warfare, threat systems, explosive phenomenology, target vulnerability assessments, weapons effects, modeling and simulations, C4ISR and C2BMC, IMINT, low observables testing, and laboratory support. BRC employs over 300 personnel and has been pivotal in Government customer on-site support to AFRL, Edwards AFB; AFLCMC, Eglin AFB; AFRL and NASIC at Wright Patterson AFB; USACE ERDC, Vicksburg, MS; PEO Soldier at Fort Belvoir and Aberdeen Proving Grounds; TSMO and MDA at Redstone Arsenal in Huntsville, AL; NASA/MSFC in Huntsville, AL; DOI/BIA in Herndon, VA; and recently supported CENTCOM, EUCOM and AFRICOM.

BRC is best known for its work for Federal and State agencies in the areas of Research, Development, Test and Evaluation (RDT&E), Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR), Engineering Services and Intelligence/CYBER. Our experience spans all military services, NASA and a wealth of other defense agencies.

BRC is the Prime contractor to the Technical and Management Advisory Services (TMAS) Platforms Mission Area Task Order under the GSA's One Acquisition Solution for Integrated Services (OASIS) Small Business contract vehicle. The task order contract provides professional engineering and technical services and non-technical management support to the Air Force Test Center (AFTC) for Research, Development, Test and Evaluation (RDT&E) activities at multiple locations. BRC supports multiple Combined Test Forces (CTFs) for over 16 airframes to evaluate the effectiveness and suitability of avionic and weapon systems to support current and future United States Air Force air combat capabilities. Additionally, BRC as a Prime Contractor to the OSD JT&E Program, supported combatant commands by performing critical joint tests at sites across the country and overseas. As an OASIS SB Prime Contractor, BRC brings a wealth of experience to bear in the Pool 1 and Pool 3 contact arenas of engineering services and engineering for military aerospace equipment and weapons systems. BRC is a SeaPort-E SB Prime Contractor, eligible for awards in all 7 zones, is ISO 9001:2015 certified and maintains a Top Secret facility clearance.

Some areas where BRC brings specific expertise include:

- Research Development Test & Evaluation (RDT&E)
- Training and Test Range Support
- Command Control Communications Computers Intelligence Surveillance and Reconnaissance (C4ISR)
- Modeling & Simulation/ Software Development
- Software Engineering
- Algorithm Development/ Physics
- Cognitive Reasoning/ Artificial Intelligence
- Conceptual Graphs
- Knowledge Management
- CYBER Integration and Assurance
- Camouflage, Concealment & Deception
- Battle Damage Assessment
- Threat Systems
- ORACLE Database Development

Bevilacqua Research Corporation is an equal opportunity employer. Minorities/Females/Disabled/Veterans and VEVRAA federal contractor. We recruit, employ train, compensate and promote without regard to race, religion, creed, color, national origin, age, gender, sexual orientation, marital status, disability, veteran status or any other basis protected by applicable federal, state or local law.

Bevilacqua Research Corporation, 4901-B Corporate Drive, Huntsville AL 35805

www.brc2.com



Dr. Andy Bevilacqua
CEO/CTO
andyb@brc2.com
256.882.6229 x102

Mr. James Buchanan
President/COO
jamesb@brc2.com
256.882.6229 x118

Mr. Ken Scott
CFO
kens@brc2.com
256.882.6229 x106

Mr. David Vidler
Director, Bus Dev
davidv@brc2.com
256.882.6229 x130



Innovative Technology

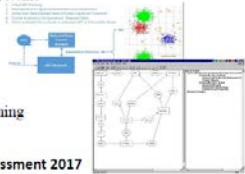
CORE: Award-Winning Tools for the Rapid Creation of Machine Learning Algorithms



WHAT: CORE toolset developed under the Army SBIR program allows non-experts to quickly and easily design and implement validated machine learning algorithms in live, virtual and constructive systems

USES:

- Autonomy
- Decision support
- Machine Learning
- Adaptability & Learning



DOD Techlink Office Assessment 2017



POINT OF CONTACT: Andy Bevilacqua, PhD, Cognitive Optical Psychophysics
Bevilacqua Research Corporation, Huntsville, Alabama
(256) 603-1657, andyb@brc2.com

NEW TECHNOLOGY FACT SHEET

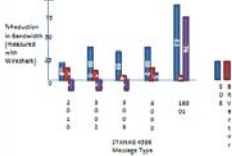
Ultra Low Bandwidth, Lossless & Secure Communications



WHAT: Semiotic Digital Encoding is not a compression technique. It is an encoding technique who's byproduct is an ultra-compressed format for any structured data

USES:

- Communications
- Bandwidth Reduction
- Communications Security
- Force Protection



Independent testing by NAVAIR verified that this technique is orders of magnitude better than any existing bandwidth reduction techniques

POINT OF CONTACT: Andy Bevilacqua, PhD, Cognitive Optical Psychophysics
Bevilacqua Research Corporation, Huntsville, Alabama
(256) 603-1657, andyb@brc2.com

NEW TECHNOLOGY FACT SHEET

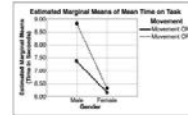
ACTIVE COGNITIVE LOAD REDUCTION (aCLR)



WHAT: New Evidence From the Field of Cognitive Neuroscience Shows That Mental Load During Stressful Tasks Can Be Reduced through the induction of non-biological movement at specific frequencies

USES:

- Stress Reduction on long-duration tasks
- Speeding up the human learning process
- Enhanced attention, focus and understanding



Three years of human experiments verify that this effect is real, however more experimentation is needed to optimize the process

POINT OF CONTACT: Andy Bevilacqua, PhD, Cognitive Optical Psychophysics
Advanced Cognitive Concepts LLC, Huntsville, Alabama
(256) 603-1657, andyb@brc2.com

NEW TECHNOLOGY FACT SHEET

FOGCUTTER: Inexpensive Sensor for Seeing Through Fog



WHAT: A new inexpensive notch filter is used in the H₂O absorption bands with some image processing to see through thick fog.

USES:

- Security / Force Protection (Civil and military)
- Facility perimeter security



POINT OF CONTACT: Andy Bevilacqua, PhD, Cognitive Optical Psychophysics
Bevilacqua Research Corporation, Huntsville, Alabama
(256) 603-1657, andyb@brc2.com

NEW TECHNOLOGY FACT SHEET

Communications in GPS-Denied Environments



WHAT: A new method of communicating in GPS-Denied areas such as Tunnels, Rubble, etc.

USES:

- Tracking of emergency responders/soldiers crawling through rubble
- Tracking and communications within tunnels
- Tunnel mapping
- Counter Drug / Force Protection



NOTE: The Rapid Equipping Force requested a calculation of the range of this method using one of their existing radios in February 2018

POINT OF CONTACT: Andy Bevilacqua, PhD, Cognitive Optical Psychophysics
Bevilacqua Research Corporation, Huntsville, Alabama
(256) 603-1657, andyb@brc2.com

NEW TECHNOLOGY FACT SHEET

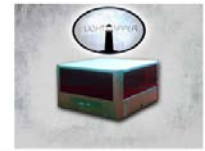
LIGHTMAPPER: Remote 3D Projection of Light and Heat



WHAT: Uses projectors and commercial software to wrap light around any shaped object, making it look like something it is not. Can project in the Visible, SWIR and Far IR.

USES:

- Small and Large-scale
- Deception possible
- Force Protection
- Facility Protection
- Runway Protection
- More....



POINT OF CONTACT: Andy Bevilacqua, PhD, Cognitive Optical Psychophysics
Bevilacqua Research Corporation, Huntsville, Alabama
(256) 603-1657, andyb@brc2.com

NEW TECHNOLOGY FACT SHEET

SHADOWCASTER: Active Invisibility Cloaking



WHAT: A method of keeping a stationary or moving object hidden in shadows so it cannot be seen from even a few feet away.

USES:

- Security / Force Protection
- Soft Target Protection
- Facility Protection



Being developed under a CRADA with the ERDC Survivability Branch. Proof of principle complete. Solid State Version demonstrated (No moving parts). Uses the optical principle of Flicker Fusion to deceive the eye

POINT OF CONTACT: Andy Bevilacqua, PhD, Cognitive Optical Psychophysics
Bevilacqua Research Corporation, Huntsville, Alabama
(256) 603-1657, andyb@brc2.com

NEW TECHNOLOGY FACT SHEET

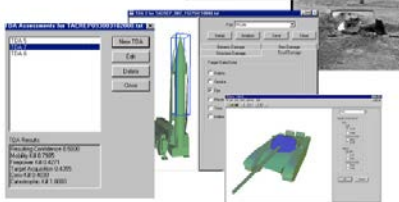
Automated Battle Damage Assessment



WHAT: Over the last 26 years BRC has built and fielded dozens of automated damage assessment tools for various DOD organizations.

USES:

- Automated BDA
- Target Damage Assessment
- Engineering Decision Support



POINT OF CONTACT: Andy Bevilacqua, PhD, Cognitive Optical Psychophysics
Bevilacqua Research Corporation, Huntsville, Alabama
(256) 603-1657, andyb@brc2.com

NEW TECHNOLOGY FACT SHEET

Advanced Knowledge Delivery and Visualization Environments



WHAT: Advanced ergonomic designs that employ AR/VR, and machine learning to provide optimized situational awareness for decision support by large or small teams

USES:

- CYBER Visualization
- Team Visualization
- C2 Visualization
- Enhanced situational awareness

An advanced ergonomic design incorporating augmented and virtual reality with machine learning to optimize the synthesis and delivery of knowledge from large data sets



POINT OF CONTACT: Andy Bevilacqua, PhD, Cognitive Optical Psychophysics
Bevilacqua Research Corporation, Huntsville, Alabama
(256) 603-1657, andyb@brc2.com

NEW TECHNOLOGY FACT SHEET