PROTECTING THOSE WHO SERVE

THE
BLAST GAUGE®
SYSTEM

BLAST TRAUMATIC BRAIN INJURY: AN OCCUPATIONAL HAZARD

Traumatic brain injury (TBI) from an explosive blast remains a significant problem for military and law enforcement personnel exposed to harmful levels of blast shockwaves, especially those involved in operations and training. A blast shockwave can cause a series of complex mechanical and physical reactions in the brain. Mild to moderate TBI may be difficult to detect immediately post event, with cognitive or motor deficits manifesting weeks or months later. Additionally, scientific studies have linked repetitive overpressure exposure to structural changes in the brain, increased risk of PTSD, acceleration of age-associated neurological disorders, and concussion symptoms, highlighting the need for individualized blast surveillance similar to radiation badge programs. Because it is not practical to provide protection from the occupational hazard of blast shockwaves, monitoring and documenting exposure to identify individuals at risk for TBI is paramount.

THE BLAST GAUGE® SYSTEM

THE BLAST GAUGE® SYSTEM

ACTUAL SIZE

✓ THE SOLUTION FOR MILITARY & LAW ENFORCEMENT

IMPROVE TACTICS, TECHNIQUES, AND PROCEDURES
Minimize exposures and preserve performance

GUIDE TRIAGE
Securely interrogate wirelessly or via button push, aiding quick decision making

BLAST EXPOSURE TO AID IN TREATMENT
Blast overpressure, acceleration, and body loading data for detailed event analysis

WIRELESS
Optional wireless connectivity to a PC or iOS/Android handheld to download blast information to user-friendly app

RELIABLE BATTERY
Non-rechargeable battery designed for military extremes, lasts a full deployment and minimizes logistics

ROBUST
Fully encapsulated design withstands weather and blast

FLEXIBLE MOUNTING
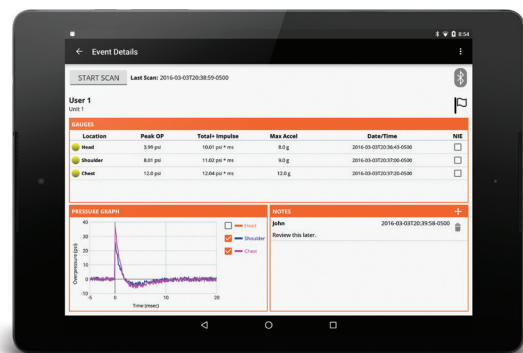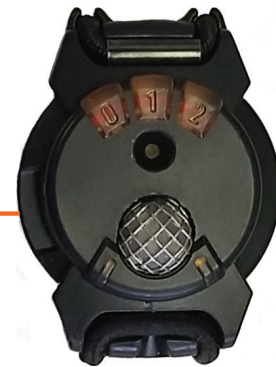Easily attaches to helmets, gear, structures, and vehicles

SECURE
Operator privacy protected

BATTLE-TESTED
Fielded by the U.S. Military

USER-FRIENDLY MOBILE APP

FLEXIBLE MOUNTING:
HEAD
SHOULDER
CHEST

📈 SAFER TRAINING & DRILLS

ENVIRONMENTAL MAPPING

KNOW YOUR SAFE DISTANCE
- Ensure appropriate Minimum Safe Distance for your stack
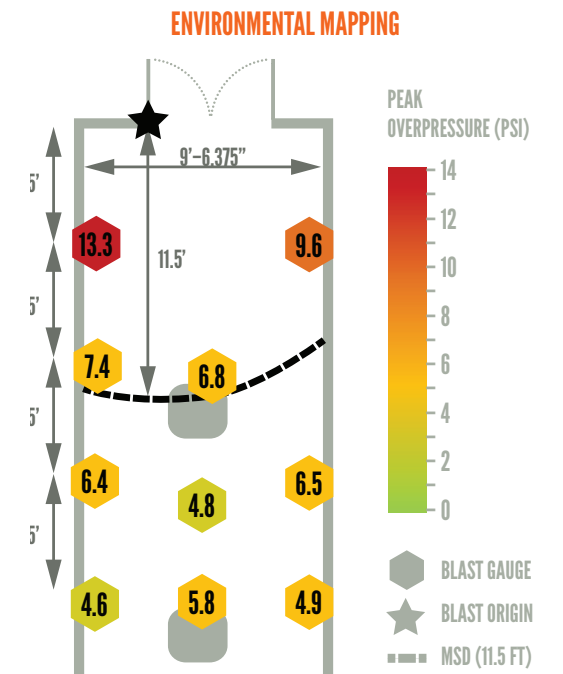
MEASURE FLASHBANG SHOCKWAVES
- Deploy flashbangs with confidence by knowing overpressure levels based on size and configuration of room

MAP YOUR ENVIRONMENT
- Locate the best places to stand in a room during an explosive breach and entry

MONITOR REPETITIVE EXPOSURE FROM WEAPONS
- Track overpressure exposure from artillery, mortar, shoulder fired weapons, and small arms fire on operators

PEAK OVERPRESSURE (PSI): 0–14

Values: 13.3, 9.6, 7.4, 6.8, 6.4, 4.8, 6.5, 4.6, 5.8, 4.9

9'–6.375" 11.5' 5' 5' 5' 5'

⬡ BLAST GAUGE
★ BLAST ORIGIN
--- MSD (11.5 FT)

Ostertag, M. H., Kenyon, M., Borkholder, D. A., Lee, G., Silva, U. D., & Kamimori, G. (2013). The Blast Gauge™ System as a Research Tool to Quantify Blast Overpressure in Complex Environments. *Volume 3A: Biomedical and Biotechnology Engineering.* doi:10.1115

SUPPORT MEDICS/EMTS

TRIAGE WIRELESSLY OR WITH A BUTTON PUSH
- Instantly assist the trauma team in guiding triage with objective blast exposure data

MAINTAIN YOUR UNIT'S PEAK PERFORMANCE
- Track personnel to identify those at-risk and proactively manage the level of exposure and subsequent wellness

CONTROL LIABILITY

REDUCE PROPERTY DAMAGE CLAIMS
- Monitor a breach or controlled destination in a civilian locale to ensure it didn't cause shockwave damage
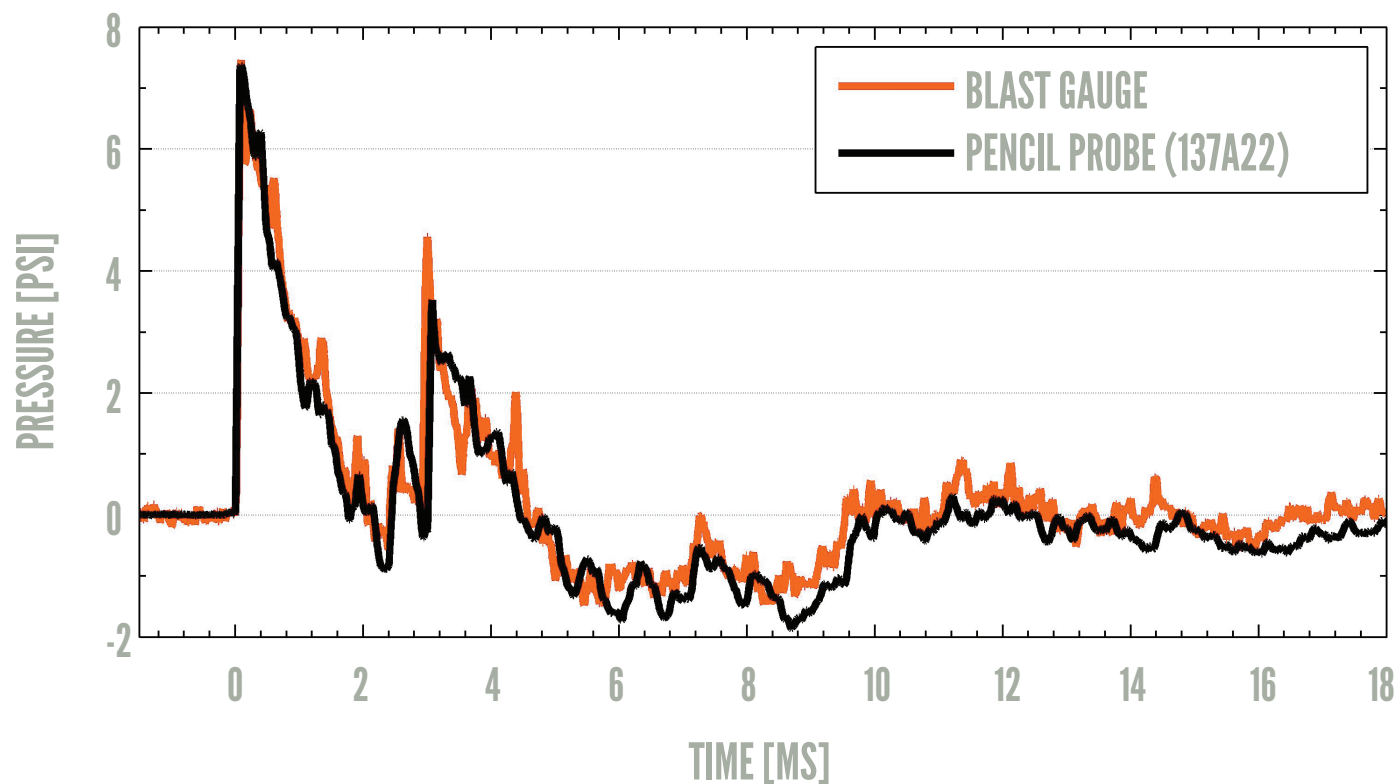
PROTECT YOUR OPERATORS
- Reduce exposures to mitigate long-term implications of the occupation
- Ensure operators get evaluated for the long-term care they deserve with objective measures documenting occupational exposure

ADVANCE RESEARCH

INEXPENSIVE AND EASY-TO-USE TOOL anyone can use for research into vulnerability, survivability, and lethality related to explosives, protective materials, vehicles, and weapon systems

THE
BLAST GAUGE®
SYSTEM

BLASTGAUGE.COM

v.1.0.1 Digital

CAGE CODE: 6G3L8

DEVELOPED BY

BLACK**BOX**
BIOMETRICS