



CURRENT BRAIN  
HEALTH INITIATIVES  
& FINDINGS IN ARMY  
SPECIAL OPERATIONS

**SGM CHRIS MCNAMARA**



Neither I nor my spouse/partner has a relevant financial relationship with a commercial interest to disclose.

DISCLOSURES





- The views and opinions expressed in this presentation are my own and do not necessarily reflect the official policy or position of the United States Army, the Department of Defense, or any other agency of the U.S. government. I am speaking in my personal capacity, and my statements should not be interpreted as representing the views of the Army or the Department of Defense.

DISCLAIMER

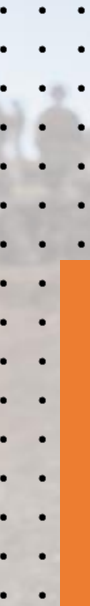
# BACKGROUND

## **Chris McNamara**

- **22+ Year SOF Soldier**
- **15 Combat Deployments**
- **Entire Career as a SOF Medic**
- **Human Weapon System Director**
- **Elite Forces Pilot Team SME**

## **3<sup>rd</sup> Operational Support Group**

- **Highest DEPTEMPO in D.O.D.**
- **Extremely intense training demands**
- **Most mature population in SOF**
- **Missions of National Significance**
- **Command emphasis on PEOPLE.**





Mild Traumatic Brain Injury and Career  
Stage Associated with  
Space

The neurometabolic ca  
implications of m

ORIGINAL ARTICLES

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JOURNAL ARTICLE

Effects of

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# A Warfighter Resilience.

Barczak-Scarboro NE , Cole WR , DeFreese JD , Fredrickson BL , Kiefer AW , Bailar-Heath M ,  
Burke RJ , DeLellis SM , Kane SF , Lynch JH , Means GE , Depenbrock PJ , Mihalik JP

Journal of Special Operations Medicine : a Peer Reviewed Journal for SOF Medical  
Professionals, 01 Aug 2022, :13NL-N4QW

<https://doi.org/10.55460/13nl-n4qw> PMID: 35862847

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Brain Communicatio  
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Article

Military Medicine, Volume 185, Iss  
e1953, <https://doi.org/10.1093/milmed>,

Published: 30 December 2020



# People Are Our Platform

## Educate

### Research Findings:

- Soldiers with a history of repeated blast exposure demonstrate decreased resistance to brain network damage
- Baseline and longitudinal assessments have enabled the identification of physiological markers to measure exposure to blast beyond self-reporting

### Unit-Level Solutions Implemented:

- Development of a blast exposure monitoring ecosystem enables development of a blast log
- Development of a “return to shoot program”
- Creation of the MUCHETE 3D printed tamping forms that reduce blast exposure by 61%
- Consistent with ASECARMY priorities of baseline neurocognitive testing (NCT) improved protective equipment, and sensor capabilities

### Way Forward:

- The unique SOF environment created the ideal research opportunity
- It is now time to expedite research processes, to better scale these lessons and materiel solutions with the Joint Force



*3D printed, tamped charge*



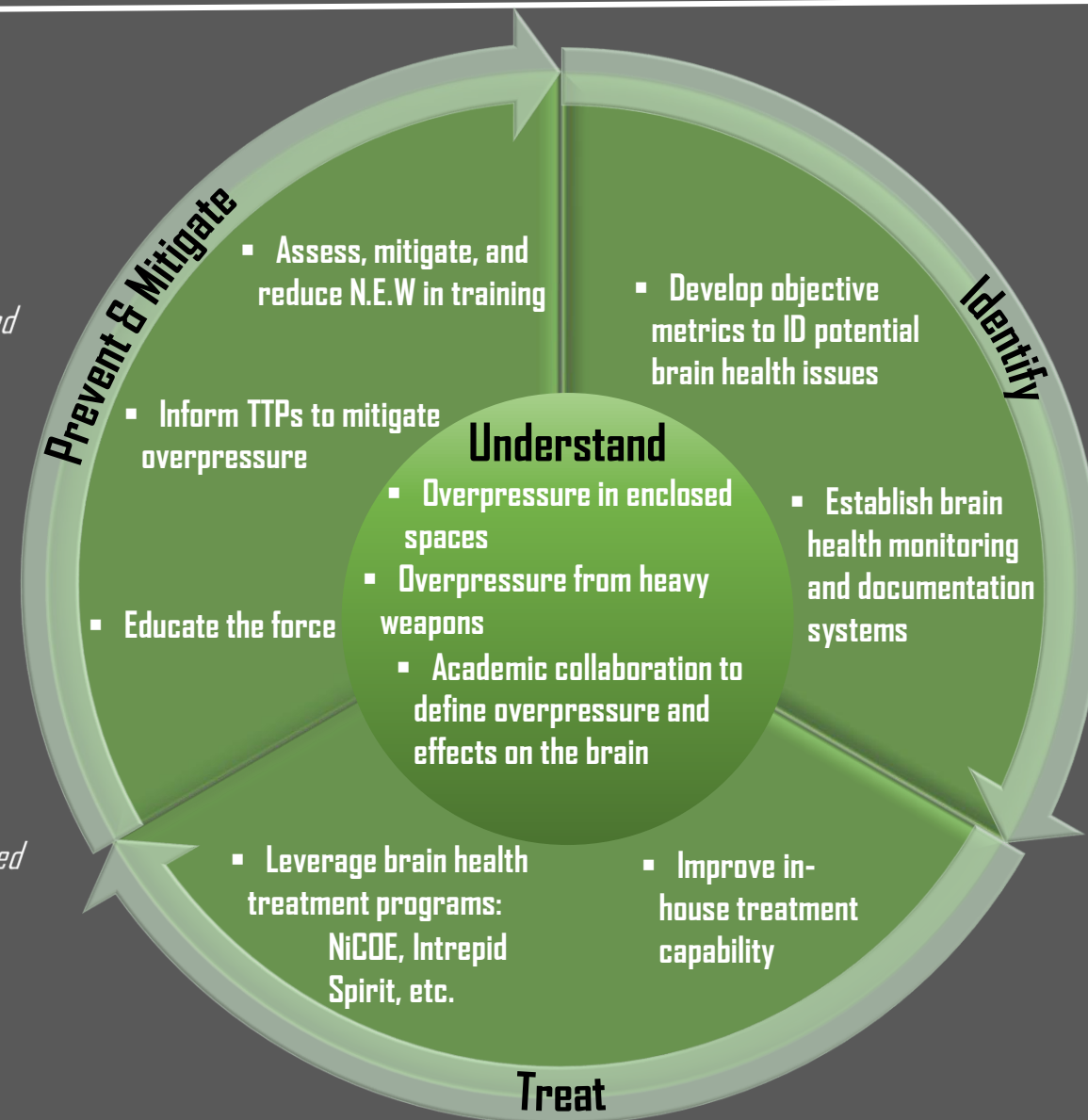
*OmniBlast Air Sensor by AMAD*



*Biofidelic Instrumented Head form*

## Empower

## Embrace



# UNDERSTAND

Over pressure dosing & effects

Shoot house 3D Modeling

Longitudinal academic research

Near real time data collection

Multifaceted Testing

Digital Overpressure Logs

# IDENTIFY

# PREVENT / MITIGATE

Reduced N.E.W. Charge forms

Increased Suppressor & Shroud Use

Shoothouse Modifications

Proactive Care

Personalized Return To Shoot Protocols

Multidisciplinary Care

# TREATMENT



Preserve Lethality



"IT IS AMAZING WHAT  
YOU CAN ACCOMPLISH IF  
YOU DO NOT CARE WHO  
GETS THE CREDIT."  
- TRUMAN

**TO COLLABORATE, CONTACT US AT**

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