

A.U.FIRE Accuracy Under Fire Injury Simulator

AFWERX Phase-1 Contract # FA864923P0844

A.U.FIRE is a new reality-based training tool specifically designed for Security Forces, Special Forces, Pararescue Jumpers (PJs), Military Police (MPs), SERE trainees, and tactical operators or anybody that may be required to complete a job despite being injured. These smaller units, when deployed deep into battlefields, must be prepared to fight back even when shot and injured, counterattacking and surviving until evacuation resources arrive.

A.U.FIRE addresses a crucial training gap—namely, the realistic simulation of fighting back effectively and accurately while shot, injured, and still under continuous attack.

Historically, such injury training has been unrealistic, simulating incapacitated limbs by tying an arm behind one's back or rendering one hand unusable with duct tape. Such methods are predictable and do not add significant stress or realistic challenge to training.

A.U.FIRE fills that training gap by offering a deeply immersive, force-feedback experience. It employs safe, muscle-contracting E-Stim technology (Electrical Muscle Stimulation, TENS Units) integrated into [wearable fabric garments](#). The same tech used in [physical therapy](#).

Trainees don the E-stim garments, enter force-on-force training, and an instructor operates the A.U.FIRE system via remote control. A button press inflicts immediate, targeted muscle contractions, creating intense but safe, simulated incapacitating limb injuries on trainees during combat scenarios.

A.U.FIRE provides a comprehensive force-feedback training experience, realistically emulating actual combat injuries allowing personnel to immediately experience random, simulated injuries to their arms, legs, or abdomen during force-on-force training. This advanced system enhances trainees' ability to practice effective countermeasures under duress and degraded physical conditions. It offers an immersive training environment to prepare their survival thinking skills in real-world combat situations.

A.U.FIRE training will develop stress inoculation, concentration, problem-solving skills, and tactical decision-making abilities within a safe yet realistic high-pressure environment. The training's primary objective is to hone their capacity for maintaining focus, delivering accurate, effective counterattacks despite being injured and under continuous assault, and enhancing stress management and survival skills. By fostering stress resilience, it empowers individuals to retain clear-headedness in dire situations, thereby significantly boosting their decisions and life-saving actions under intense combat.

Ultimately, A.U.FIRE provides personnel with the best available Reality Based Training, equipping them to make sounder, life-saving actions when injured and still under fire. This comprehensive approach will enhance their survival odds and [overall mission success](#).

Visit: www.AUFIRE.com to learn more. Also, see A.U.FIRE's [founder's backstory](#) here.

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Army Operational Needs Statement

Research conducted by Mavin International LLC

CEO Ret. US Army Col. Anthony Judge

Special Operations Forces (ARSOF, Ranger Regt, JSOC) and Military Police (MP) patrols routinely experience situations where they are required to mitigate threats or continue to engage enemy forces after they have been injured. Responding with lethal force after initial contact has been made is well documented and often compels awards for valor in instances where the injured person overcomes the initial shock, loss of use of limbs, or limited mobility and continues to suppress, engage, and neutralize the person who engaged them. In accordance with the Army's DA Pamphlet 350-38 "*Standards in Weapons Training*," the use of Training Aids, Devices, Simulations, and Simulators (TADSS) is strongly encouraged. The AUFIRE training system is designed to replicate the loss of limb function or loss of mobility subsequent to a person or persons engaging SOF or Law Enforcement personnel (MP, DA Police).

Special Operations Forces often operate in austere environments, completely dependent upon indigenous resources. Operating in small groups of 12 or fewer persons without organic resources necessary for CASEVAC/MEDEVAC requires every team member to contribute to the security posture of the unit, regardless of their injuries. Unlike conventional forces who train for and practice establishing security, repelling enemy attacks, and other required actions prior to triage of their wounded, SOF does not have the manpower to accomplish such tasks and are therefore expected to continue to fight, regardless of injuries, until the security posture is established and medical attention rendered.

Military Police and DA Police Officers often patrol alone or in pairs and are routinely exposed to criminal incidents involving deadly force. Because of this, most MP commands require additional backup prior to engaging domestic disturbances or active shooter incidents. Many incidents where an MP or other Law enforcement Officer faces the greatest risk is traffic enforcement duties. It is in these situations when a subject may act most erratic, yet the officer is not only authorized to apply lethal force, but also expected to do so even if they have lost the use of a limb.

The nature of conducting routine operations as either a SOF Soldier, MP, or DA Police Officer is complex and dangerous. For SOF Soldiers, the ability to contribute to the overall security posture and eliminate threats after injury is critical to mission success. For the MP and DA Police Officer, uncertainty and hesitation will lead to their death if they aren't trained under realistic conditions to overcome the loss of mobility or use of a limb due to a subject's application of lethal force. Neither scenario can be reproduced in training without a tool that effectively replicates the operational environment these personnel face daily. In both cases, Accuracy Under Fire (AUFIRE) is a uniquely realistic training tool designed to improve one's decision-making, return-fire accuracy, and life-preservation skills after being hit by gunfire, a knife, or other objects, in dynamic force-on-force scenarios.

The AUFIRE accomplishes these effects using FDA-approved Electrical muscle stimulation (E-Stim) on the arms, legs, or torso to degrade the use of a limb or limbs temporarily, or to limit mobility, similar to the effect of gunshot wounds. The affected limb or body part is temporarily immobilized by an instructor and immediately regains full function when the button is released by the instructor. This leads to greater skill, builds confidence, and reduces hesitation at the moment of contact. This is critical to mission success and will prevent further injury or loss of life.

Current weapons training standards do not require target engagement using unconventional techniques. Despite the Army's strong endorsement for the use of TADSS to simulate the effects of the battlefield, the Army has not adopted a training device that safely mimics the effects of threat-initiated injuries for the most affected personnel in service: SOF Soldiers, MPs, and DA Police Officers. These Soldiers are expected to continue to perform their duties regardless of injuries, and their chains of command cannot simultaneously expect a Soldier to perform their duties after injury and not train them how to do so after injury. The AUFIRE system seeks to prepare these Soldiers for real-world scenarios by training them to apply lethal force despite injuries during tough, realistic training.

Research conducted by:

Ret. US Army Col. [Anthony Judge](#),

Chief Executive Officer at Maven International LLC

Contact

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Top Skills

DoD

Military Operations

Homeland Security

Honors-Awards

MacArthur Leadership Award

Anthony Judge

Chief Executive Officer at Maven International LLC
Fort Benning, Georgia, United States

Summary

Experienced senior organizational leader with a demonstrated history of working in the military industry. Skilled in operations / emergency management, intelligence fusion, organizational readiness, operational/crisis planning, requirements development and material acquisitions. Strong military and protective services senior professional with a MA and MMA in National Security and Strategic Studies from The United States Naval and Army War Colleges.

Experience

Maven International LLC

Chief Executive Officer

December 2020 - Present (2 years 2 months)

Phenix City, Alabama, United States

US Army

6 years 6 months

Director, TCM-SFAB

August 2019 - December 2020 (1 year 5 months)

Fort Benning, Georgia

Brigade Commander - 199th Infantry Brigade

June 2017 - July 2019 (2 years 2 months)

Fort Benning, GA

XVIII Airborne Corps Director of Operations (OIR)

July 2016 - June 2017 (1 year)

Fort Bragg, North Carolina

82nd Airborne Division G3 / ACoS

July 2014 - July 2016 (2 years 1 month)

82nd Airborne Division, Fort Bragg, NC

The United States Army War College

Student

June 2013 - June 2014 (1 year 1 month)

Carlisle, Pennsylvania

US Army

9 years

Deputy Brigade Commander

August 2011 - June 2013 (1 year 11 months)

3 BCT, 82nd Airborne Division

Battalion Commander

July 2009 - July 2011 (2 years 1 month)

1-509 IN (ABN)

Brigade Trainer Mentor

October 2008 - July 2009 (10 months)

Joint Readiness Training Center

Battalion Executive Officer

July 2006 - October 2008 (2 years 4 months)

1-504 PIR, 82nd Airborne Division

Task Force Red Devil XO for OIF Rotation 06-08

Battalion Operations Officer

July 2005 - July 2006 (1 year 1 month)

1-504 PIR, 82nd Airborne Division

Task Force 134 S3 for OIF Rotation 05-07

G3 Operations Officer

July 2004 - July 2005 (1 year 1 month)

XVIII ABN Corps

MNC-I Operations Officer in Charge for OIF Rotation 04-06

United States Department of Defense

Deputy Aide-de-Camp to Chairman, JCS

July 2002 - July 2003 (1 year 1 month)

Joint Staff, Pentagon

US Army

Company Commander

April 2000 - July 2002 (2 years 4 months)

United Nations Command Honor Guard, Seoul, Korea

US Army

Company Commander

August 1998 - February 2000 (1 year 7 months)

1-502 IN (AASLT), 101st Airborne Division

Company Commander for MFO Rotation #37, Sinai, Egypt

US Army

Company Commander

January 1997 - October 1997 (10 months)

E CO, 52nd IN (ABN)(LRS)

Education

The United States Army War College

MMA, National Security and Strategic Studies · (2013 - 2014)

Naval War College

MA, National Security and Strategic Studies · (2003 - 2004)

United States Military Academy at West Point

BS, Area Studies and Spanish · (1989 - 1993)

New Mexico Military Institute

High School Diploma, General Education and Spanish · (1986 - 1989)

Southern California Military Academy

None, Elementary/Middle School · (1982 - 1986)