

## 2022 ENCOUNTERING INNOVATION BLUF STATEMENTS

### FORCE PROTECTION MANAGEMENT

Air Armor Tech, LLC	Advanced Technology Inflatable Protection System (ATIPS)	Patented inflatable technology that provides 360-degree extreme protection for valuable, critical equipment in austere environments. Light-weight, flexible, bouyant and ultimately collapsible for space savings. A textile outer case combined with an interior inflatable bladder provides superior protection that conforms to the object and then collapses when not in use. Offers the soldier, sailor, law enforcement officer, etc. a practical means of protecting the gear they rely on without adding unnecessary weight or bulk in harsh environments. Easily collapses when deflated for space saving storage as gear is used and no longer requires the protective case/bag. Perfect for limited space environments such as deployment or ship-borne ops. Also shipping container. Our technology protects your technology.
Apollo 13 Designs	Operator Communication System	Operator Communication System (OCS) is a new covert wearable ring communication system utilizing one's thumb (which has nearly identical ambulatory ability as one's tongue), providing a silent method of communication, unaffected by nearby sound or detection efforts. OCS works with legacy or the new CNR (Combat Net Radio) systems, iOS or Android civilian smartphones, or other computer systems, wirelessly & at distance from them. It is important to know that while the initial building protocol phase of this device was a challenge, the value to our Brave WarFighters, Diplomats, and government/civilian personnel is the simple and intuitive function. Generation-1 at TRL6 now, allows for "SOS", cell call control, full fitness capability with memory, device APP control and "find my phone" feature. Generation-2 allows the tracing out of letters over the small raised disc for transmission. Generation-3 works together with vilal-sign gathering "EarAide" to automatically gather and transmit one's health status & combines all data into a unique "BioGeoSignature" of the wearer. In addition we have discovered that direct silent communication appears to produce an incremental increase of intuitive communication, perhaps as a result of the bypass of audible speech.
Darkhive, Inc.	YELLOWJACKET Attritable NanoUAS	Darkhive's YELLOWJACKET drone is an ultra light-weight, low-cost, NDAA/Blue sUAS compliant nanoUAS integrated directly with the Tactical Assault Kit (TAK) family of systems and designed to support both single user and swarming functions. Darkhive's software stack was built to enable any user to pick up and begin instantly using the

		platform with little-to-no training required, making the YELLOWJACKET ideal for the joint operations environment with multi-national partner force elements.
Duroair Technologies USA Inc.	Immediate Clean Air Solutions Retractable, Ventless, Deployable Isolation Booth– Anytime and Anywhere	<b>Duroair’s current military and commercial users report to us that our retractable ventless air quality systems allows repairs to Warfighter assets anywhere and anytime saving mission critical time, energy, operating costs and capital costs.</b> Our systems are <b>not vented</b> and are on wheel making them mobile. That allows immediate repurposing of any area within any building to a clean room, preparation room, dust/ blast control room or coatings application room. This saves on the need to build new facilities and thereby reduces capital cost investment. <b>Retractable</b> isolation booths are extended only when needed to isolate a process. When isolation is not required you can retract the isolation booth and return the area to production. The system is then available to be moved to wherever required within the building, to a new building or a forward operating base. Our 250 plus customer installations were on budget, on time, every time.
Elevated Health Systems LLC	ESP-DLux™ - Automated Germicidal Light Infection Control/Biosecurity System	The ESP-DLux™ provides continuous disinfection of air and periodic disinfection of hard surfaces using a patented system combining industrial-strength UVC light, sensors and wireless controls. With the ESP-DLux™ installed in a facility, a continuous log of disinfection is maintained, documenting that dangerous pathogens including COVID-19 have been eradicated. The ESP-DLux™ is offered in 2 models to facilitate different needs: the stand-alone Series 100 is designed to be rapidly deployable, while the Series 300 model features advanced Safety-Net™ technology, allowing multiple UVC fixtures to be networked and wirelessly controlled throughout an entire facility. Both models provide powerful, automated UVC disinfection.
Hormesys	Dosing Lactate as Medicine to Treat PTSD and Depression	Lactate, once thought of as a waste product, is now understood to be the preferred energy source by the brain and serves as the principal metric for both the evaluation of and prescription of precision-based exercise. Using low-cost equipment with a small footprint, this technology evaluates the individual’s body type to determine the optimal exercise(s) to release lactate; available exercise options include field-based Blood Flow Restriction. The quantity of lactate released over time is estimated so that there is a sufficient level of lactate to treat Post Traumatic Stress Disorder (PTSD) and Depression. Performance optimization is enabled through discrete, anonymous, and non-pharmacologic treatment of PTSD and depression.

Intelligent Cranium Helmets LLC	iC-R 100% Tech Advanced Smart Motorcycle Helmet	Intelligent Cranium Helmets (ICH) is a tech company positioned to truly disrupt & usher in a new era of advanced motorcycle safety with blind spot elimination & Ai. Currently motorcycle riders (including a number of ICH team members) have a huge blind spot around them that has left them vulnerable and susceptible to life threatening accidents, however; ICH has solved this problem by integrating custom and currently available technologies into a motorcycle helmet that alerts and allows the rider to see danger before it's too late.
Leafy Green Farms	Shipping Container, Hydroponic, Climate Controlled Farm for Military Use	Leafy Green Farms designed a shipping container, hydroponics farm for the military. The farm provides nutrient-dense, hyper-organic produce to our service members year-round. The farm can easily be air-dropped, shipped, or delivered anywhere including disaster relief areas. The sustainable farming method improves the health and well-being of our troops as well as limits the risk associated with food procurement from a security and health standpoint. The farms produce an array of fresh produce that eliminates the degradation factor that occurs with traditionally imported produce. Our service members deserve the best nutrition to help them perform their best - mentally and physically.
Natural Choice Co., LLC	(NPB) Natural Protective Barrier "Virtual Glove" Technology	Our 100% Natural formula kills in seconds harmful bacteria like: Listeria, Salmonella and E-coli and it creates a protective barrier that coats your hands, like a virtual glove, so you are not in direct contact with any surface. It comes off when you wash it off.
Texas High Energy Materials, LLC	Crashworthy and Ballistic Tolerant Self-Sealing Fuel Bladder for Combat Aircraft	Our novel fuel bladder technology is self-sealing and crashworthy, and uniquely versatile and easily adaptable to any geometry and platform. In addition, all materials to construct our bladders are 100% synthetic, reliable, consistent, and readily available in large commercial quantities. Finally, the application process used to construct our bladders can be fully automated, and is able to produce completed bladders in hours, not days or months as with the incumbent World War I and II era fuel bladder materials and designs that continued to be fielded today. Texas High Energy Materials specializes in materials designed that endure the most extreme conditions while staying environmentally friendly. We seek meetings and Phase III discussions with those interested in our bladder technology that enables mission-critical assets, damaged in battle to remain in service without compromising safety or performance of the aircraft.