ARMY SOF-SPACE-CYBER TRIAD: MULTIDOMAIN COGNIZANCE

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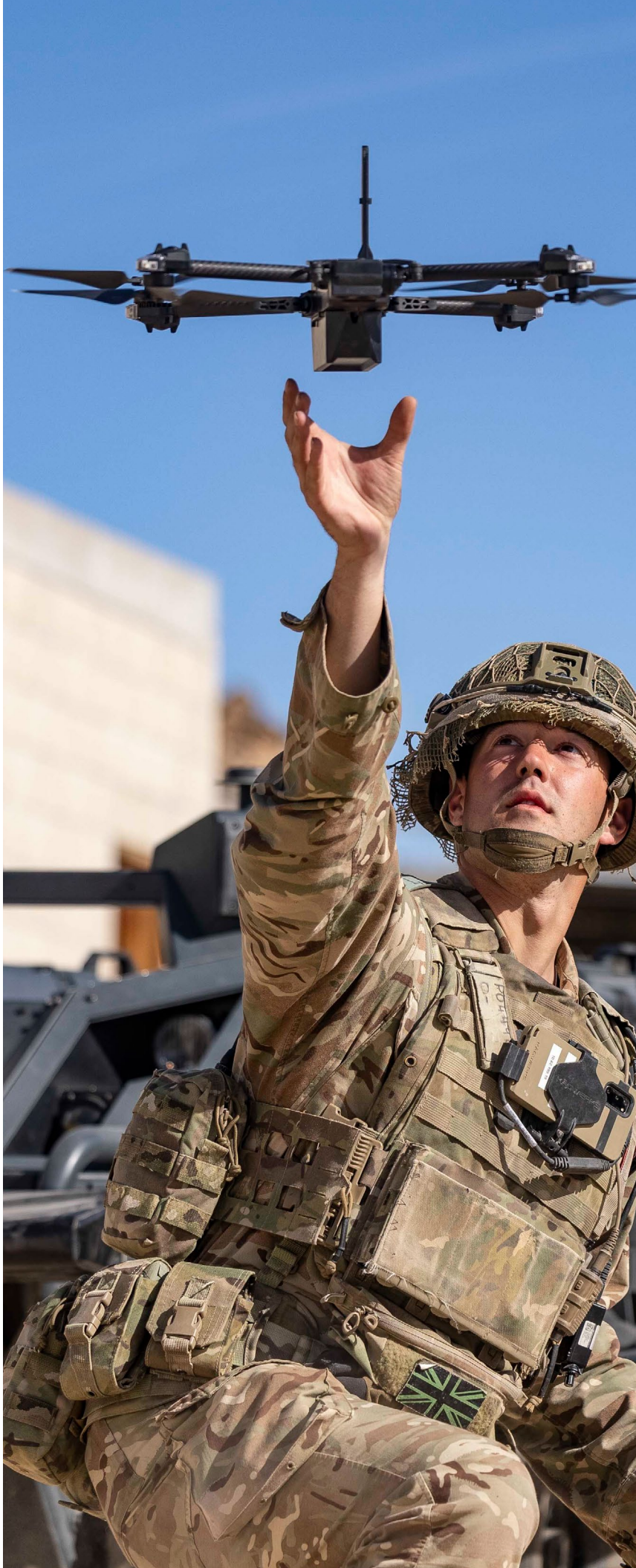
The Army SOF-Space-Cyber Triad is a collaboration effort involving the United States Army Special Operations Command (USASOC), United States Army Space and Missile Defense Command (USASMDC), and United States Army Cyber Command (ARCYBER).

Over a decade ago, the Triad concept was a feature of the USASOC Silent Quest exercise, which focuses on emerging threats in complex operational environments. Silent Quest is a series of exercises and events, nested with the Army's Unified Quest and United States Special Operations Command (USSOCOM) Shadow Warrior Project, that tests Army Special Operations concepts.

With recent attention at the 2022 Space and Missile Defense Symposium in Huntsville, Alabama, and the 2023 Association of the United States Army (AUSA) Annual Conference in Washington D.C., the senior leaders from the three commands took a keen interest in the "modern" or "new" Triad. Both events featured Triad-specific panels supported by Army senior leaders from the respective proponents. Using "Integrated Deterrence," a key concept from the 2022 National Defense Strategy as the common denominator, there is a conscious effort to differentiate the SOF-Space-Cyber Triad from the U.S. nuclear triad. Historically, the nuclear triad involves the U.S. Air Force and the U.S. Navy delivery of nuclear warheads by land, air, and sea as a means of strategic deterrence from nuclear attack. While the nuclear and SOF-Space-Cyber triads are a vital component to national security, the distinct purpose of each is what separates the two.

The SOF-Space-Cyber partnership is not a new concept. Throughout the past two decades of conflict during the Global War on Terrorism, special operations, space and cyber forces have been working together. The SOF-Space-Cyber collaboration gained notoriety due to the rapidly evolving threats pertaining to great power competition and the Army's shift from counterinsurgency operations to large-scale combat operations. At the same time, the Army changed its doctrine from AirLand Battle to multidomain operations to account for the space domain and information

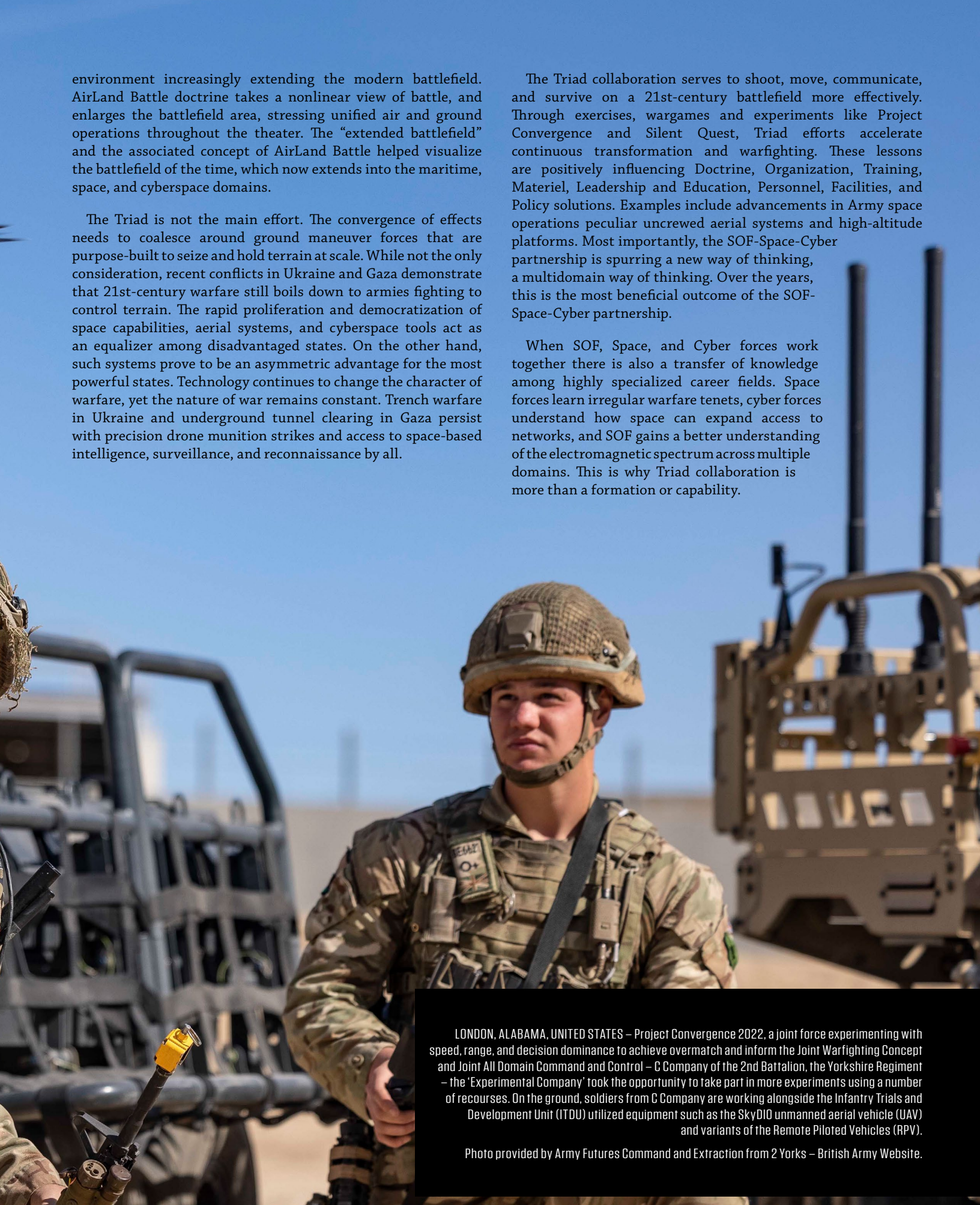


environment increasingly extending the modern battlefield. AirLand Battle doctrine takes a nonlinear view of battle, and enlarges the battlefield area, stressing unified air and ground operations throughout the theater. The "extended battlefield" and the associated concept of AirLand Battle helped visualize the battlefield of the time, which now extends into the maritime, space, and cyberspace domains.

The Triad is not the main effort. The convergence of effects needs to coalesce around ground maneuver forces that are purpose-built to seize and hold terrain at scale. While not the only consideration, recent conflicts in Ukraine and Gaza demonstrate that 21st-century warfare still boils down to armies fighting to control terrain. The rapid proliferation and democratization of space capabilities, aerial systems, and cyberspace tools act as an equalizer among disadvantaged states. On the other hand, such systems prove to be an asymmetric advantage for the most powerful states. Technology continues to change the character of warfare, yet the nature of war remains constant. Trench warfare in Ukraine and underground tunnel clearing in Gaza persist with precision drone munition strikes and access to space-based intelligence, surveillance, and reconnaissance by all.

The Triad collaboration serves to shoot, move, communicate, and survive on a 21st-century battlefield more effectively. Through exercises, wargames and experiments like Project Convergence and Silent Quest, Triad efforts accelerate continuous transformation and warfighting. These lessons are positively influencing Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy solutions. Examples include advancements in Army space operations peculiar uncrewed aerial systems and high-altitude platforms. Most importantly, the SOF-Space-Cyber partnership is spurring a new way of thinking, a multidomain way of thinking. Over the years, this is the most beneficial outcome of the SOF-Space-Cyber partnership.

When SOF, Space, and Cyber forces work together there is also a transfer of knowledge among highly specialized career fields. Space forces learn irregular warfare tenets, cyber forces understand how space can expand access to networks, and SOF gains a better understanding of the electromagnetic spectrum across multiple domains. This is why Triad collaboration is more than a formation or capability.



LONDON, ALABAMA, UNITED STATES – Project Convergence 2022, a joint force experimenting with speed, range, and decision dominance to achieve overmatch and inform the Joint Warfighting Concept and Joint All Domain Command and Control – C Company of the 2nd Battalion, the Yorkshire Regiment – the 'Experimental Company' took the opportunity to take part in more experiments using a number of recourses. On the ground, soldiers from C Company are working alongside the Infantry Trials and Development Unit (ITDU) utilized equipment such as the SkyDIO unmanned aerial vehicle (UAV) and variants of the Remote Piloted Vehicles (RPV).

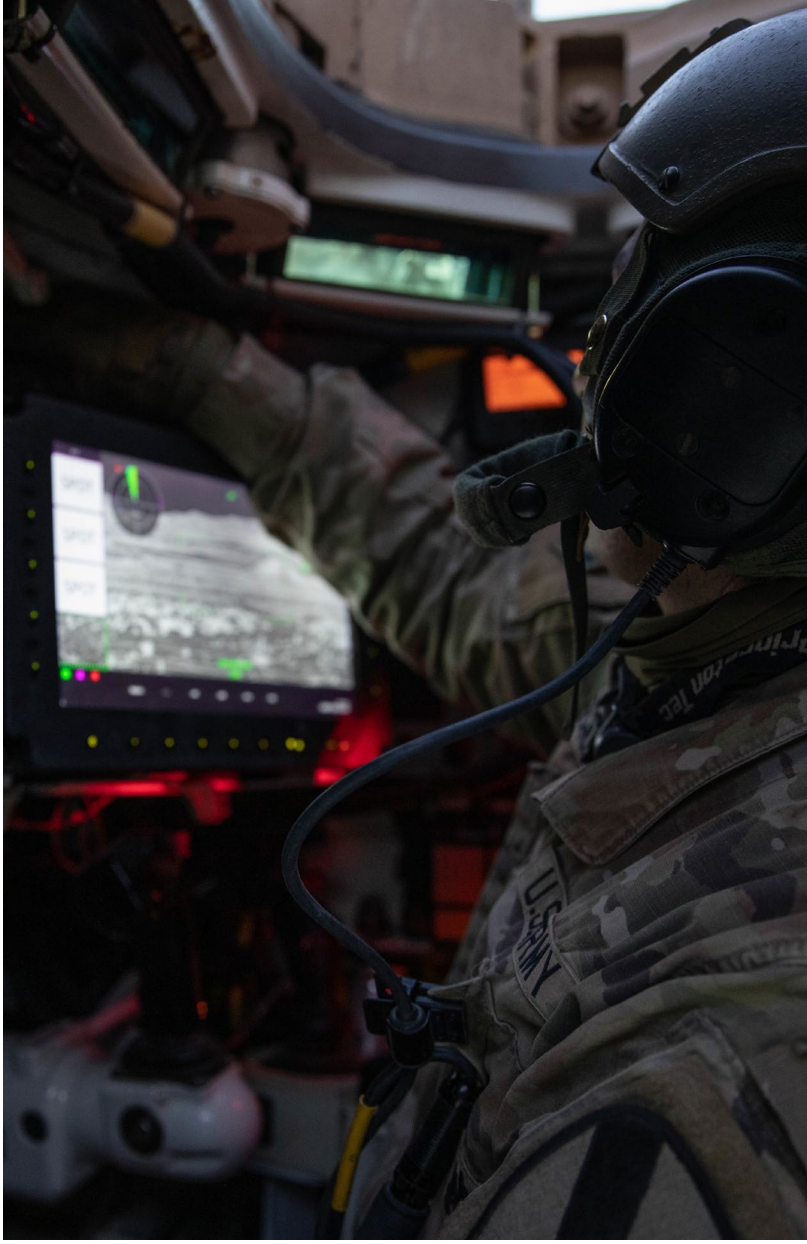
Photo provided by Army Futures Command and Extraction from 2 Yorks – British Army Website.

The Triad collaboration helps us better understand multidomain operations, as well as electromagnetic spectrum familiarization more broadly. As the Army pivots to great power competition and large-scale combat operations, familiarity with the electromagnetic spectrum must be standard across the Army. The 21st-century warfare demands a more thorough understanding of electromagnetic spectrum signatures, emissions control, and who is emitting what and where. Electromagnetic spectrum mastery is becoming increasingly more integral to understanding friendly and adversarial kill chains, as well as the find, fix, finish, exploit, analyze, and disseminate cycle. There are a lot of positive features regarding the Triad collaboration, but there are also some negative aspects. Next, we will explore the downsides of the Triad partnership.

The "Triad" re-branding effort created confusion throughout the Army and across the Department of Defense. The overuse of Triad branding makes the collaboration seem exclusive to USASOC, USASMDC, and ARCYBER. While these three commands represent the genesis of the SOF-Space-Cyber partnership, the initiative must expand beyond these commands. Separate from the Triad moniker and branding efforts, another downside involves Army core competencies. The SOF-Space-Cyber forces need to strike a balance between specialization and generalization. As highly specialized Soldiers cross-train, it dilutes their core competency skills. Specialized skills are often perishable and require constant training to remain proficient. At some point, there is a diminishing return when cross-training and highly specialized Soldiers must build external dependencies, such as leveraging space operations officers' expertise. The Triad cannot jeopardize Army core competencies to gain general knowledge. For example, Army space professionals would find it difficult to remain proficient in space capability certifications while adding SOF training requirements like language proficiency and survival, evasion, resistance, and escape training.

The purpose of the Triad collaboration must culminate with enabling the Army to seize and hold terrain. Warfighting at scale matters, and the Triad collaboration needs to extend beyond USASOC, USASMDC, and ARCYBER. With niche organizations and exquisite capabilities, there is a tendency to focus internally. For example, there needs to be a focus on how Triad-related exercises, wargames, and experiments can support infantry and armor divisions. Further, can Triad lessons scale across the Army? The disadvantages should not discourage the SOF, Space and Cyber collaboration from persisting. Such criticisms can strengthen the initiative and generate broad appeal.

The Triad must extend into day-to-day operations. This means USASOC, USASMDC, and ARCYBER need to work more closely together and alongside other Army service component commands. This will expand the scope and scale of experiments, exercises, and wargames. Next, the Triad collaboration should double down on how the initiative directly supports ground maneuver forces to seize and retain terrain at scale. I recommend pivoting from integrated deterrence and moving toward multidomain operations as the underlying principle that unites SOF-Space-Cyber forces. It is never too late to re-brand. I recommend avoiding the use of buzzwords and conflating terminology and focusing on long-term strategic goals. The higher purpose of the Triad must always be to enable the Army to close with and destroy the enemy. As lessons learned from Ukraine showcase, 21st century wars remain incredibly violent and bloody.



Soldiers assigned to 1st Battalion, 7th Calvary Regiment, conduct combat maneuvers containing an Advanced Targeting and Lethality Aided System (ATLAS) at Fort Irwin, California, on Nov. 5, 2022. During Project Convergence 2022, many systems were tested to determine how future command and control capabilities can be integrated with all-service multi-national partners.

U.S. Army photo by Spc. Gabriella Bruce-Larkin.

Finally, the Triad collaboration should produce holistic, Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy changes to shape future operating concepts and doctrine. When appropriate, scale Triad lessons learned across Army formations, especially multi-domain task forces. The Triad should inform the Planning, Programming, Budgeting, and Execution System and forums like the Total Army Analysis, Strategic Portfolio Reviews, Program Decision Memorandum studies, and Program Objective Memorandum. As a result, the SOF-Space-Cyber partnership will spur large-scale organizational change. When drawing parallels to multidomain operations, the Triad partnership allows the Army to rethink traditional mission areas. As the Army better understands space and cyberspace threats, this will change Army warfighting. The SOF-Space-Cyber collaboration could serve as the Army vanguard that develops the next generation of creative problem solvers who embody a new way of thinking.