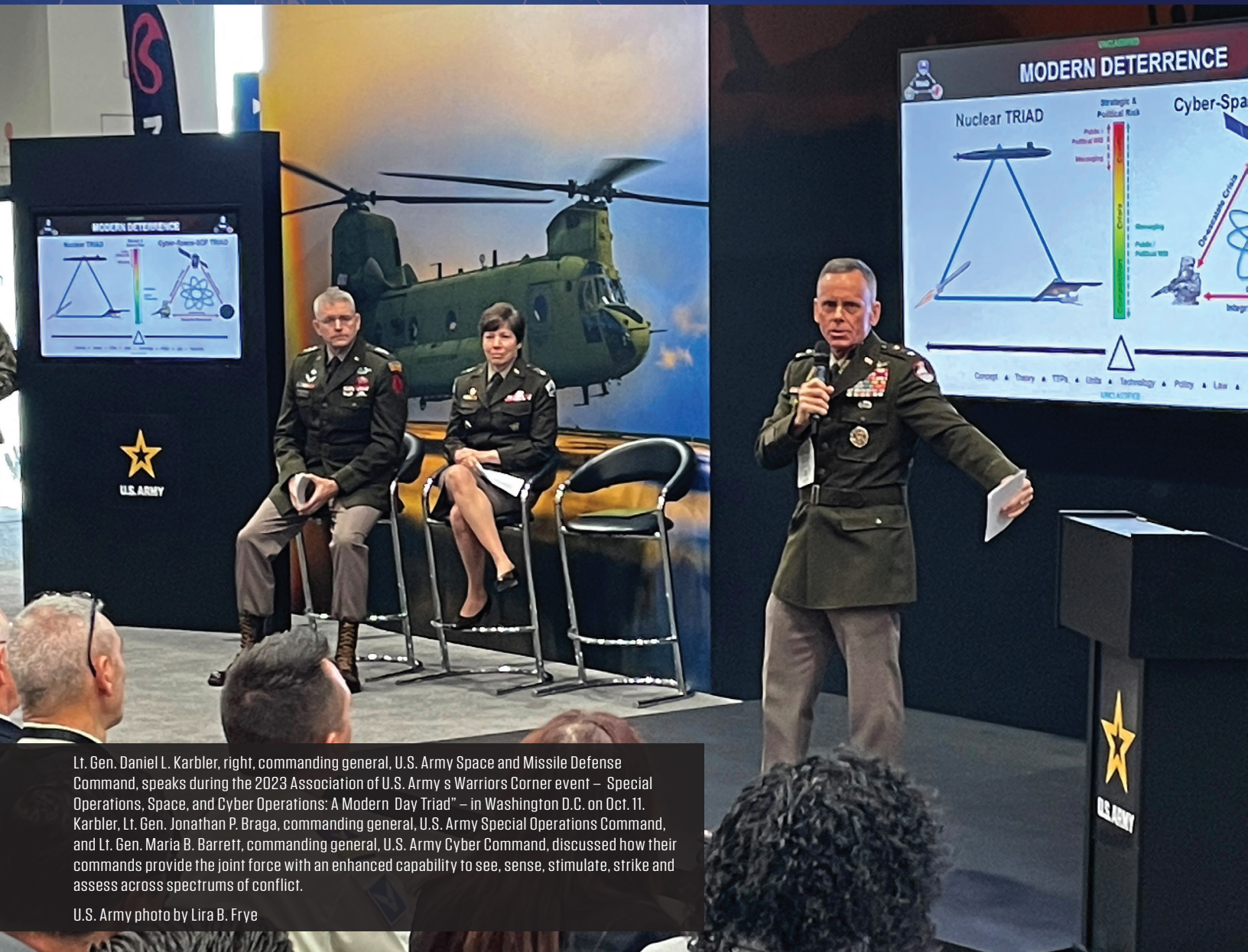


# FROM TRIANGLES TO CIRCLES

## RESHAPING CYBER-SPACE-SOF TRIAD FOR MAXIMUM OPERATIONAL IMPACT

By Lt. Lloyd Forrest Hansen, U.S. Navy



Lt. Gen. Daniel L. Karbler, right, commanding general, U.S. Army Space and Missile Defense Command, speaks during the 2023 Association of U.S. Army's Warriors Corner event – Special Operations, Space, and Cyber Operations: A Modern Day Triad” – in Washington D.C. on Oct. 11. Karbler, Lt. Gen. Jonathan P. Braga, commanding general, U.S. Army Special Operations Command, and Lt. Gen. Maria B. Barrett, commanding general, U.S. Army Cyber Command, discussed how their commands provide the joint force with an enhanced capability to see, sense, stimulate, strike and assess across spectrums of conflict.

U.S. Army photo by Lira B. Frye

## INTRODUCTION

Mastering the art of strategy is crucial. Clear models and concise acronyms enable swift, effective decisions, whether on the battlefield or in the boardroom. Renowned concepts like the observe, orient, decide, act loop and mutually assured destruction are staples in military jargon because their framing is intuitive and simple.

In contrast, military concepts like a Fabian strategy, C5ISR, and campaigning are only likely to be understood in the realms of professional military education and, perhaps, by general officers. While these concepts may be important, they demand considerable mental effort to translate from abstract ideas into concrete actions. One such contemporary concept with suboptimal framing that directly impacts the special operations forces (SOF) community is the Cyber-Space-SOF Triad.

A triad framework is not new in military discourse. The most notable triad is the nuclear triad consisting of land-based intercontinental ballistic missiles, strategic bombers, and ballistic missile submarines. This represents a three-pronged approach to nuclear weapons, specifically to deter a first strike and represents the potential to leverage combinations of capabilities across multiple military domains to create synergized battlefield effects.

In 2022, Lt. Gen. Jonathan Braga, commanding general of the U.S. Army Special Operations Command, noted that the intent “is to really increase the holistic strategic effect of each of the multidomain capabilities across the spectrum of conflict both now and in the future.”<sup>01</sup> With this intent, it becomes clear that the Cyber-Space-SOF Triad needs to be reframed and reshaped.

## PROBLEMS

The Cyber-Space-SOF Triad, often likened to the nuclear triad, is mischaracterized as a “modern deterrence triad.”<sup>02</sup> This framing of the Cyber-Space-SOF Triad is like forcing a square peg into a round hole.

First, Cyber, Space, and SOF are meant to be mutually supporting capabilities and a force multiplier. During a U.S.-U.K. panel discussing the new triad, Commodore Adam Bone of U.K. Space Command Director of Operations, Plans and Training said, “...by synchronizing effects, the layered output adds up to be greater than the sum of their parts—that’s what makes the triad concept so valuable.” The nuclear triad’s capabilities are independent. Each leg of the nuclear triad is meant to serve as a means of ensuring weapons delivery even if one leg is compromised while the Cyber-Space-SOF triad is meant to work collaboratively. Therefore, in terms of mutual support to maximize effects, the nuclear triad is nothing like the Cyber-Space-SOF Triad.

Second, using the triad structure (the layout of three lines connecting three points to create a triangle) undermines the concept of mutual support for maximum effect. When visualized, the triangle gives no indication of how a combination of capabilities maximize effects. Even with directional arrows connecting each capability, the design only indicates that each capability assists the other. Additionally, the center of the triangle remains conspicuously empty and does not project a sense of effects maximization (or even of real conceptual substance). If trying to conceptualize a combination of efforts to maximize effects, a hollow triangle is not the proper way to portray this information.

Third, calling the Cyber-Space-SOF Triad a deterrent triad is misleading. In the age of integrated deterrence, initiatives are often forced to fit this mold. However, this can convey a message to the joint force that contradicts the initiative’s inherent intent.<sup>03</sup> Unlike the nuclear triad, the Cyber-Space-SOF Triad gives commanders usable options that are less likely to escalate into armed conflict.<sup>04</sup> According to Lt. Gen. Daniel L. Karbler, “The combined use of space, cyber and special operations force capabilities provides other options to commanders that are less likely to cause escalation.”<sup>05</sup> While the nuclear triad provides deterrence, the Cyber-Space-SOF Triad provides offense, defense, stability, and deterrence options. Framing the Cyber-Space-SOF Triad as a modern deterrent undervalues it as a tool that provides commanders multiple options throughout the conflict continuum.

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*Lt. Gen. Jonathan Braga  
Commanding General  
U.S. Army Special Operations Command*

Braga stated that the Cyber-Space-SOF Triad provides non-attributable options to the joint force.<sup>06</sup> Non-attributable options are not good deterrent mechanisms because it is hard to deter an adversary without presenting a credible threat. Consider the destruction of the Nord Stream pipeline. Without attribution, holding a critical asset like the Nord Stream pipeline at risk does not work as a deterrent.<sup>07</sup> If the triad provides non-attributable options then messaging it as a modern deterrent triad is misleading.

To articulate the strategic value of the Cyber-Space-SOF Triad more effectively, it is important to recast it not as a reactionary tool, but as proactive options to be used across the competition continuum. Rather than a “break glass in case of emergency” tool, like the nuclear triad, the Cyber-Space-SOF Triad is a “break glass now to avert a future crisis” tool.

## A NEW FRAMEWORK

An enhanced conceptual framework that highlights the combined strength and offensive capabilities of the Cyber-Space-SOF Triad would better serve U.S. strategic objectives. Consider the proposition of the irregular warfare combined arms framework. In this Venn diagram exists the three components of Cyber, Space, and SOF each in their own set. The intersection of each of these sets represents irregular warfare combined arms.

## A NEW FRAMEWORK

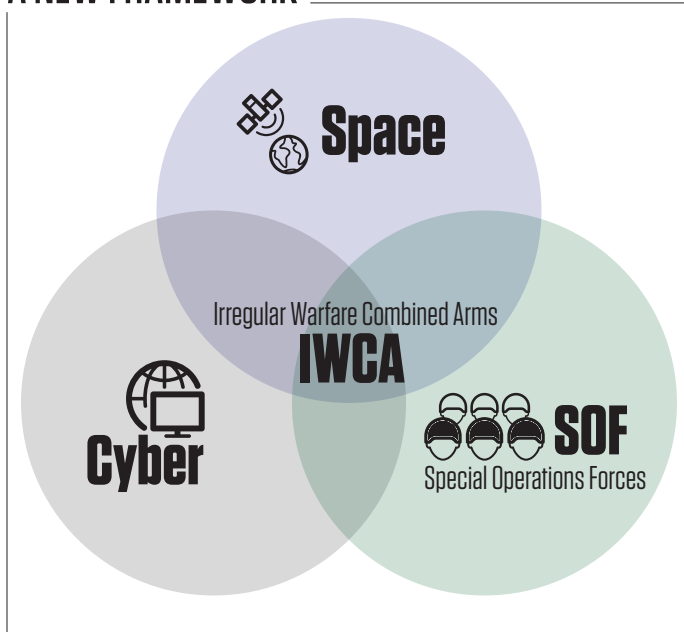


Figure provided by Lt. Lloyd Forrest Hansen

This framework provides a more intuitive understanding of the relationship between each element. Combined they offer a unique capability that otherwise would not be possible.

Additionally, there are options that can involve two of the three capabilities to increase effect. This visualization of the irregular warfare combined arms framework presents a more accurate understanding of the interplay between these capabilities and the combined arms title gives the whole framework an intuitive understanding across the joint force.

## APPLICATION AND RECOMMENDATION

Beyond an academic debate between triangles and circles, the application of this concept is what ultimately matters. Great concepts are meaningless if they do not lead to action.

One way this new framework is better suited for joint force adoption is the relatable vocabulary it brings. Concepts like enabling maneuver, force multipliers, mutual support, and battlefield integration can be applied to irregular warfare combined arms. Using this joint language helps this concept spread throughout the joint force in a manner that takes the elusive and misunderstood space-and-cyber domains along with SOF capability and make them digestible. Irregular warfare combined arms are mutually supporting force multipliers that enable battlefield maneuver to generate impacts across the continuum. This is the language of the joint force.

Another benefit of using this combined arms construct is that it gives a blueprint on how to combine these arms. Looking at conventional combined arms, elements can be established that encourage integrated planning and coordination. For example, combined arms battalions and brigade combat teams in the Army are cross-functional forces that were developed to facilitate planning and integration of their capabilities. According to Army doctrine on combined arms battalions, “The CAB combines the efforts of its armor and mechanized infantry companies to execute tactical missions.”<sup>08</sup> Furthermore, the Army has developed the multidomain task force specifically to counter adversary anti-access, area denial technologies. In recognition of the challenges and demands of the modern battlespace, this task force synergizes capabilities from various domains to achieve its objectives effectively. Organizations like these, with a focus on combining conventional or domain-based arms, provide blueprints for combining the irregular warfare capabilities of cyber, space, and SOF.

By reimagining the traditional combined arms model, commanders can forge innovative irregular warfare combined arms elements tailored to their unique operational demands. Envision an irregular warfare combined arms platoon composed of a Navy SEAL platoon or Psychological Operations team merged with maritime space officers and cryptologic warfare technicians integrated directly within the theater special operations commands. These units would be strategically positioned to coordinate their efforts, providing theater special operations commands and combatant commanders with versatile options to sculpt the battlespace and engage with adversaries with minimal risk of escalation.

## CONCLUSION

The irregular warfare combined arms framework is a more effective way to understand the important intent behind the Cyber-Space-SOF Triad. Rather than framing the trinity concept as a modern deterrent with parallels to the three nuclear weapons delivery modalities, the triad should be reshaped into a combined arms framework that builds upon the understanding of conventional combined arms. This framework is easier to conceptualize, and it emphasizes the purpose behind the triad model—that the combination of cyber, space, and SOF capabilities can provide leaders with synchronized and scalable options across the spectrum of conflict. Leaders who reconceptualize the triangular structure of the triad to the intersecting sets of the irregular warfare combined arms are not just reshaping frameworks; they are reshaping the battlespace.

<sup>01</sup> AUSA Warfighter Summit and Exposition – USASOC - SOF, CYBER AND SPACE TRIAD, 2022, <https://www.youtube.com/watch?v=1TAUbX7daJQ>. (12:05)

<sup>02</sup> AUSA Warfighter Summit and Exposition – USASOC - SOF, CYBER AND SPACE TRIAD.

<sup>03</sup> “Biden-Harris-Administrations-National-Security-Strategy-10.2022.Pdf,” accessed January 31, 2024, <https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>.

<sup>04</sup> AUSA Warfighter Summit and Exposition – USASOC - SOF, CYBER AND SPACE TRIAD.

<sup>05</sup> “Leaders Give Update on ‘Modern Triad,’” [www.army.mil](http://www.army.mil), accessed January 22, 2024, [https://www.army.mil/article/268971/leaders\\_give\\_update\\_on\\_modern\\_triad](https://www.army.mil/article/268971/leaders_give_update_on_modern_triad).

<sup>06</sup> AUSA 2023 Warriors Corner: The Special Operations Forces, Space and Cyber Triad, 2023, <https://www.youtube.com/watch?v=bgQYCGmoiBw>.

<sup>07</sup> Sergey Vakulenko, “Shock and Awe: Who Attacked the Nord Stream Pipelines?,” [Carnegie Endowment for International Peace](http://Carnegie Endowment for International Peace), accessed January 28, 2024, <https://carnegieendowment.org/politika/88062>.

<sup>08</sup> “ARN32974-ATP\_3-90.5-000-WEB-1.Pdf,” accessed January 30, 2024, [https://armypubs.army.mil/epubs/DR\\_pubs/DR\\_a/ARN32974-ATP\\_3-90.5-000-WEB-1.pdf](https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN32974-ATP_3-90.5-000-WEB-1.pdf).