China's PLA Explores "Battlefield Metaverse" Training Base To Simulate Future Warfare

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OE Watch Commentary

According to a recent article in the official *People's Liberation Army Daily* newspaper, the PLA has been reforming its training methods to enhance combat capabilities and create realistic combat environments for troops, in part to overcome a lack of combat experience. The PLA believes that a "battlefield metaverse" simulating future combat environments can be created where troops can experience a future multi-domain space approaching actual combat conditions. Such a complex, dynamic, and harsh battlefield environment requires the use of advanced technologies such as virtual reality, artificial intelligence, quantum technologies, brain-computer interface technologies, "super bionic" technology, and the Internet of Things.

The PLA describes a metaverse as a highly technologically developed virtual world existing in parallel and reacting to the real world. The battlefield metaverse can simulate the effects of new concept weapons such as meteorological weapons creating harsh environments or an unmanned "blue army" to prepare troops in a complex immersive environment.

Creating such a battlefield metaverse to simulate future warfare would not only increase unit combat capabilities. It would also improve tactics and test emerging technologies required to prepare for and win future military struggles. The PLA currently employs Battle Labs for testing tactics and new technologies, but short of actual combat, a truly immersive experience would better prepare troops to win future conflicts.

" In the face of the surging wave of new technological revolution, military construction can continue to develop and advance only by adhering to integrity and innovation. Keeping an eye on the frontiers of scientific and technological development, constantly absorbing the latest scientific and technological achievements, and applying them to the practice of military reform and preparation for military struggle in a timely manner are the only way and effective measures to win future wars."

Source: "Create a realistic and applicable 'battlefield metaverse' (打造逼真适用的"战场元宇宙)," *PLA Daily* (official People's Liberation Army newspaper), 14 April 2022, http://www.81.cn/jfjbmap/content/2022-04/14/content_313630.htm

In recent years, with the development of information network technology, various new terms, new concepts and new things emerge one after another. After big data, cloud computing, Internet of things and blockchain, the "meta universe" has attracted more and more attention.

In fact, "metaverse" is not a new term. It originated from a sci-fi concept in the novel "Avalanche" 30 years ago, and now refers to the Internet applications and social life forms that are formed by technologies such as extended reality, digital twins, blockchain, and artificial intelligence. Although it is not known how the "metaverse" will develop in the future, it at least provides us with an idea: with a series of advanced technologies such as the Internet of Things, blockchain, artificial intelligence, etc., it is possible to create a "battlefield element" that simulates future wars. "Universe" provides a super space-time environment that combines virtual reality and Internet of Things for training and preparing for war.