**Constructing a combat system based on information systems**

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President Xi Jinping pointed out that modern warfare is a confrontation between systems, integrated joint operations have become the basic form of warfare, and platform operations, system support, tactical actions, and strategic guarantees have become the prominent characteristics of modern warfare. Deeply studying and understanding President Xi's important judgment on the form of modern warfare, conducting in-depth research and exploration of the winning mechanism of system-to-system confrontation, and planning the strategic tasks that our army will shoulder in the future, and continuously deepening the research and development of system operations based on information systems, are of great significance to enriching our military's military theory and tactics system.

**The connotation and extension of system operations**

　　Basic concepts. Concepts are the logical starting point for research. What is a "system"? "System" is one of the ways in which a system exists, a higher stage and form of a system, a large system composed of multiple systems, and a system of systems. The "Cihai" explains it as "a whole composed of several related things that are interconnected and mutually restricted." It can be seen that the "system" has three obvious characteristics, namely, integrity, multi-things, and correlation. Introducing "system" into the scope of combat, that is, what is system combat? System combat is supported by network information systems, in which many combat elements, combat units, and combat systems are integrated into an organic whole, jointly perceive the battlefield situation, share battlefield information in real time, accurately coordinate battlefield actions, synchronously carry out combat tasks, and conduct precise evaluation and control in a timely manner, so that the most effective combat forces can release the most accurate combat effectiveness for the most valuable combat targets. The definition defines that the background of system combat is under information conditions, the foundation is the information system, and the core is overall linkage.

　　Development process. The embryonic stage of system combat was in the 1960s and 1970s, represented and started by the emergence of the US military command and control system. Later, the communication system was added, which is what we often call C3. During this period, informationized weapons and equipment gradually entered the battlefield. For example, after the US E-2 "Hawkeye" and EA-6 electronic warfare aircraft joined the air combat system in the Vietnam battlefield, the loss rate of fighter planes was greatly reduced; with the support of C3 and the air combat system, 15 laser-guided bombs were used to successfully blow up the Thanh Hoa Bridge in Vietnam, which had been bombed thousands of times in the past five years. The role of the "system" began to attract attention. The development stage was from the 1970s to the 1990s. Major countries in the world actively carried out information construction, built satellite communications, submarine communications, strategic early warning, reconnaissance and detection systems, and were committed to developing informationized weapons and equipment. The United States integrated intelligence into the information system to form C3I, and widely applied various sensors to informationized weapons and equipment. The combat system is becoming more and more complete. In 1982, Israel adopted system combat tactics such as drone deception, electronic jamming suppression, air precision assault, and air early warning command, which made 19 Syrian SAM missile positions disappear in 6 minutes, and created a record of 0:87 in air combat; in the Gulf War, multinational forces were united through the C3I system, and relied on a strict combat system to successfully disintegrate the complete combat system of the Iraqi army, and then paralyzed and defeated the Iraqi army, creating a successful precedent for multi-dimensional forces to jointly implement system combat in multi-dimensional space. The formation stage was from the 1990s to the early 21st century. Western countries, led by the United States, learned from the lessons of local wars, absorbed the latest achievements of their own information construction, and improved the combat system. The United States integrated computing, surveillance, and reconnaissance into the information system to form C4ISR. It is precisely the recent local wars that have refreshed people's traditional understanding of war and felt the power of system combat. Taking the Iraq War as an example, its characteristics of using system combat are very obvious: the United States uses the "deterrence" theory to guide operations, and has changed from emphasizing overwhelming absolute advantages in the past to using smaller-scale troops to rely on powerful systems to implement rapid breakthroughs and reach Baghdad. This war used half the troops, half the deployment time, and one-seventh the ammunition of the Gulf War, but achieved a greater victory. The war did not, as some experts predicted, "the US military would be bogged down in the vast ocean of the Iraqi People's War." In the final analysis, system warfare overturned the traditional war model.

　　Connotation and characteristics. The development process and basic concepts of comprehensive system operations can be summarized as "four characteristics": First, multidimensionality. System operations are carried out simultaneously in multidimensional space and multiple fields, including both tangible battlefields and intangible battlefields, covering both the physical domain of direct combat and the outer space and the field of public opinion and psychological cognition. Second, nonlinearity. The boundaries between the front and the rear, offense and defense, campaigns and tactics, and the front and flank tend to be blurred and weakened. From the beginning, it is a full-depth operation, no longer focusing on destroying the living force, but paralyzing the entire combat system and destroying the war potential and will by attacking key nodes. Third, precision. Relying on a multi-level, full-time and space, near-real-time battlefield perception system, as well as the support of precision-guided weapons, the OODA cycle is shortened, and various firepower strike operations are highly precise. Fourth, decisiveness. The overall linkage of troops is large, the action density is high, and the overall effectiveness is emergent. In the initial stage of the war, it can achieve victory without fighting, and in the critical stage of the war, it can stop the war and quickly decide the situation.

　　As a combat idea and tactics, system warfare based on information systems is essentially embodied in the following aspects: First, it emphasizes overall victory. It builds a strong and complete combat system, explores efficient and smooth operating mechanisms, and forms an overall force that is superior to the opponent. Second, it highlights one's own strengths and attacks the enemy's weaknesses. On the basis of fully studying and analyzing the situation of both the enemy and us, it gives full play to one's own advantages, attacks the opponent's weaknesses, weakens the opponent's advantages, combat capabilities and combat potential in general, and seizes the initiative in combat. Third, it focuses on paralyzing the body and destroying the network. It uses precision weapons to accurately strike important joints in the enemy's combat system, causing the enemy's entire combat system to be paralyzed, thereby losing combat effectiveness.