**Integrate Smart Victory into Operational Theory Innovation**

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**Reading Tips**

**To seek combat effectiveness from scientific and technological innovation is an era proposition for innovation in combat theory. At present, the scientific and technological revolution is showing a trend of strong leadership of intelligent technology, accelerated innovation, and frequent breakthroughs. The form of war is evolving towards intelligence, and "intelligent victory" is becoming the key to winning wars and operations. Real challenges require us to not only identify the direction, keep a close eye on the forefront, and grasp the trend, but also have a deeper thinking and exploration of innovative thinking patterns, supporting environment, application mechanism, and development path.**

　　The military field is the field with the most innovative vitality and the one that needs the most innovative spirit. War and combat research is at the core of military theory innovation. We must firmly grasp the issues of war and combat to promote military theory innovation and explore and form scientific cognition of the war environment, war concept, and combat style under intelligent conditions.

**Change of thinking——**

**What is the foothold for driving innovation with “wisdom wins”?**

　　Today, human society is entering an era of "intelligent survival". In the military field, the development of intelligent technology is reshaping the face of war, especially forcibly promoting the reconstruction of combat theory. The organic combination of combat theory and intelligent technology is a process of integrating intelligent technology elements into the thinking framework and injecting intelligent thinking driving force into the innovation of combat theory.

　　Intelligent thinking is a mode of thinking based on the scientific cognition of intelligent technology. It should be recognized that the hotly debated concept of intelligence has been regarded as a new energy generated by the new combination of human brain and machine, and has become a new potential for driving the change of the times, a new driving force for promoting the development of practice, and a new efficiency of demonstrating scientific and technological power, giving the concept of intelligence a new value and meaning from connotation to extension. Intelligent thinking is a new understanding of the new value and significance of intelligence, reflecting the "technological reshaping" of military thinking in the intelligent era, and has become an important mode of thinking that adapts to the evolution of war forms. Generally speaking, any innovation is the externalization of the subject's internal thinking innovation. From the perspective of combat theory innovation, establishing the combat concept of winning the winning advantage with intelligence and exploring the combat method of releasing combat effectiveness with intelligence are the concentrated embodiment of innovation driven by intelligent thinking.

　　Clausewitz said that any thinking is a kind of ability. To promote the innovation of combat theory, we must base ourselves on improving the understanding and control of intelligent technology and open up the channel of intelligent thinking. In fact, technology determines tactics in terms of material basis. It is not that new technologies and new equipment will naturally lead to new tactics. The creation of any new tactics is inseparable from the arduous exploration of subjective and objective, and depends on the keen perception and thorough understanding of new technologies, and then the in-depth exploration of their performance value and combat effectiveness. The development of disruptive technologies with artificial intelligence as the core has the greatest impact on subverting traditional cognition. The effectiveness of combat theory innovation depends to a large extent on the speed of getting rid of the inherent mindset and establishing intelligent thinking concepts and ways of thinking. Thinking concepts are leading. If the concepts lag behind, it is inevitable to fall into the dilemma of "old wine in new bottles"; thinking methods are dominant and operational. If the thinking methods are outdated, it is inevitable to make low-level mistakes such as "using carbines as sticks". Only by solving the "brain change" problem with a strong sense of crisis and urgency, and using intelligent thinking to break through cognitive blind spots and avoid short-circuit thinking, can we win the advantages of foresight, superior knowledge, and wisdom in the innovation of combat theory.

**Change of paradigm——**

**Where is the focus of leveraging innovation with "wisdom"?**

　　In the military operation in Syria, the Russian army used a variety of unmanned combat robots for the first time, and applied a variety of new electronic warfare equipment to conduct actual combat tests of new combat modes, which was described as a "preview of future combat styles." Adapting to the evolution of combat forms in the intelligent era, from the physical combination of man and machine to intelligent integration, from control tools to creation modes, has become a key focus of combat theory innovation.

　　It should be noted that the accelerated development of high-tech with intelligent technology as an important symbol has injected new connotations into joint operations based on network information systems. Creating a new combat mode with informationized operations as the fulcrum and intelligent operations as the core is not only the new core of joint operations, but also the focus of combat theory innovation. The basic path to designing future operations and innovating combat modes is to seek "precision" with "intelligence", use artificial intelligence, big data, cloud computing and other technologies to intelligently upgrade and transform combat processes, generate data links and smooth information flows based on intelligence, so that precision combat capabilities can achieve a new leap; seek "speed" with "intelligence", transform a large number of complicated manual operations in combat planning into intelligent operations, and add new momentum to rapid response capabilities based on intelligent auxiliary decision-making and combat command; seek "innovation" with "intelligence", accelerate the development of new forces such as human-machine collaborative intelligent operations and intelligent unmanned cluster operations, and generate new capabilities and new combat power based on intelligence, so that new quality combat capabilities can become new weapons; seek "integration" with "intelligence", build combat command and support systems into intelligent combat platforms for human-machine interaction, and strengthen the integration of combat forces and elements based on intelligence, so that integrated combat capabilities can achieve new aggregation. Only by fighting with intelligence can we win a "smart victory". Creating an intelligent combat mode with its own characteristics and unique advantages is undoubtedly the leading direction of combat design and the key to winning in the future.

　　The battlefield has always been the focus of innovative combat modes. The development of core key technologies of artificial intelligence will inevitably give rise to new combat fields, and this new battlefield with a special way of competition has become a new window for innovative combat modes. Pay attention to the network battlefield, grasp its characteristics of virtual concealment, information blindness, system destruction and paralysis, and explore new modes of network intelligent attack and defense operations; pay attention to the space battlefield, grasp its characteristics of seamlessness, edgelessness, high uncertainty, and high dependence on power, and explore new modes of space intelligent attack, assault, and blockade operations; pay attention to the unmanned battlefield, and explore new modes of unmanned intelligent combat in view of its all-weather, full-space, all-round combat and rapid, precise, and autonomous characteristics; pay attention to the cognitive battlefield, and explore new modes of intelligent cognitive confrontation in view of its soft-kill characteristics of psychological disintegration, disrupting thinking, and paralyzing will. At the same time, adapt to the interconnectivity and integration of the combat space, explore new intelligent combat modes such as integrated signal and fire, integrated air and space, integrated network and electricity, cross-domain power control, and multi-domain linkage, extend the tentacles of combat theory innovation to the forefront of reform, and strive to seek new countermeasures and strategies for "wise victory" in the future.

**Platform changes**

**What is the support point for promoting innovation with "smart victory"?**

　　In 2016, the release of the artificial intelligence system "AlphaGo" achieved the first breakthrough of an intelligent robot defeating a professional human player. Now the new version of the "Master" system can serve as an intelligent platform for actual combat training, replay analysis, and verification of sub-effects. From auxiliary means to intelligent platforms, this has a lot of inspiration and "sample" significance for the construction of a new technical support environment for the innovation of combat theory.

　　In terms of science and technology, combat theory research has generally gone through three stages: first, using mathematical modeling, probability analysis, mathematical statistics, computer simulation and other methods and means to get rid of the traditional model that focuses on experience judgment, qualitative analysis, and strategic thinking; second, using information networks, virtual simulation, data integration, war games and other methods and means to open up effective ways to solve the difficulties of evaluation quantification, confrontation simulation, and results verification; now entering the third stage, building an intelligent experimental platform based on data-driven, deep learning, high simulation, human-machine collaboration, and autonomous control, striving to achieve a "seamless" connection between combat experiments and war practices, and even making the complexity and difficulty index of combat experiments exceed actual combat. With the breakthrough of a series of key and supporting technologies, the "future picture" presented by artificial intelligence must be subversive. The intelligent combat experimental platform can not only demonstrate concept technology, verify action plans, and deduce the course of war, making simulated actual combat confrontation exercises more realistic, but also can autonomously generate combat designs, action plans, and combat data, giving birth to new ideas, new concepts, and new tactics, so that combat theory innovation can enter the operating paradigm of close collaboration of "human brain + intelligent platform".

　　It should be noted that the highly intelligent "battle laboratory" is essentially a knowledge practice platform for designing future wars. On the one hand, it provides a realistic battlefield environment and a scientific and reliable verification method for the comprehensive use of various technical means to innovate combat methods and methods; on the other hand, it will give rise to more technical theoretical innovation results such as experimental demonstration reports, action program design, and decision support systems. Future wars will start in the "laboratory" in advance, and offensive and defensive confrontations and intelligent games will unfold in the "virtual battlefield". Combat theory innovation should be understood as a practical simulation and knowledge practice, and combat practice should be understood as a theoretical experiment and value test.

**Change of Path——**

**Where are the growth points of incubating innovation with "wisdom wins"?**

　　In 2013, the US Air Force proposed the concept of "combat cloud", which aims to enable the air forces of various services to achieve a leap in information sharing capabilities in various combat fields under the support of evolving technologies, and to maximize the advantages of intelligent weapons and equipment, manned and unmanned systems, etc., to create large-scale, modular and flexible combat capabilities. This is essentially a theoretical top-level design, which has the significant effect of driving the development of technology applications with war needs, and demonstrates the technical leadership role of combat theory innovation.

　　To promote the innovation of combat theory, it is necessary not only to introduce advanced scientific and technological achievements into the combat field, but also to highlight the combat design of the application and development of military technology. In terms of content composition and research orientation, the combat theory system includes basic theory, application theory and technical theory, which are mutually infiltrated and mutually supported. Technical theory revolves around making science and technology better serve combat, explores the laws and winning mechanisms of the combat application of science and technology, leads the directional development and customized development of military technology in the combat field, and injects a stronger scientific and technological engine to enhance combat capabilities. Obviously, today when intelligence has become a key factor in combat victory, strengthening the research and innovation of technical theory, giving full play to its role in driving and forcing the application and development of intelligent technology, and improving quality and efficiency, realizing the transformation from passive follow-up to active leadership, and the leap from introduction to independent incubation, and actively seizing the commanding heights of the development of military intelligent technology, is an important starting point and growth point for the innovation of combat theory.

　　The combat field is the field that is most sensitive to the forefront of technological development. In order to promote the intelligent development of military technology and increase the leading role of technological theoretical innovation, we should closely track the development of strategic cutting-edge technologies and disruptive technologies, and focus on combat needs to clearly define the planning map and roadmap for the development of military intelligent technology; pay close attention to key areas of technological innovation that have a significant impact on future combat trends, study the transformation and application of new technologies such as quantum information, directed energy, and new materials, and strengthen the prediction and pre-research of the development trend of intelligent weapons and equipment and combat systems; develop forward-looking combat concepts and tactics, and create a combat style that deeply integrates combat systems and intelligent technologies; study and formulate relevant laws and regulations to promote the development of intelligent weapons and equipment, and provide a strong guarantee for improving the independent innovation capabilities of military intelligent technologies.