**Adhere to the integration of science and technology to study and design war**

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**Research on the path and method of designing war by integrating science and technology**

　　We must focus on the battlefield, the troops, and the future, combine war design with preparation for war, and efficiently connect and integrate the war design innovation chain with the combat command chain and construction management chain.

　　(I) Theoretical speculation. Based on the study of war history and examples, using traditional research methods, we can deduce and predict the development trend and basic direction of future wars, possible combat styles, methods and approaches, and put forward the basic concepts and main viewpoints of understanding war, adapting to war and winning war. Classic works such as "The Art of War" are innovative theoretical achievements with contemporary characteristics produced by scientific argumentation and theoretical speculation. In order to study and design future wars based on the new era and adapt to new requirements, we must combine the past wars, modern wars and future wars to grasp the basic laws of war development, fully recognize the application prospects of big data, cloud computing, artificial intelligence, quantum communication technology and other technologies in the military field, and bring about revolutionary changes. Through extensive discussions, summarization and refinement, and theoretical deduction, we can clarify what future wars will be like, how to fight and how to win, and form first-class military theoretical achievements to guide war preparation and army building.

　　(II) Simulation experiment method. Most of the armies of developed countries follow the logical chain of "proposing ideas - combat experiments - actual military exercises - actual combat tests" to study and design future wars, develop new combat concepts, propose new combat theories, and verify new combat methods. To meet the scientific and refined requirements of future wars, simulation experiment methods must be used well. We should attach great importance to the construction of combat laboratories, use simulation methods to develop theoretical innovation tactics, vigorously promote the construction of combat laboratories (centers), and test war styles, combat concepts, basic tactics, etc. based on combat theories and combat concepts through computer modeling, war game simulation, experimental verification and other methods, and set up a near-actual combat environment for quantitative analysis and simulation verification, strengthen actuarial calculations, build a precise war research and design method, and improve the scientific feasibility of war design.

　　(III) Practice of exercises and training. Whether war design is good or not is inseparable from actual combat training and testing. Practice of exercises and training is to conduct strategic, campaign and tactical exercises with real soldiers, real equipment and real ammunition. This is the highest form of research and design of war in peacetime, and it is also the research and design method that is closest to actual combat testing. First, it is based on the current equipment research and design. Adhere to the principle of fighting the war with what weapons, take the execution of combat missions as the driving force, set up complex battlefield conditions throughout the process, set up all kinds of combat elements, set up strong simulated combat opponents, set up typical combat actions, practice command, strategy, coordination and tactics, verify the advanced nature of combat thinking, the rationality of winning mechanism, and the innovation of tactics and means, and correct the level and quality of research results. Second, it is based on the research and design of future equipment. Efforts should be made to promote the transformation of the functions of the test and training base from previous equipment testing to combat experiments, make full use of new combat forces, develop new weapons and equipment, innovate combat theories, develop combat concepts, and promote war research and design.

　　(IV) Iterative optimization method. War design includes the judgment of the (future) strength of both sides, the judgment of the construction strategies and war strategies adopted by both sides, and the expectation of the outcome of the war. It is necessary to achieve the organic integration of the wisdom of experts in multiple fields and the integration of expert wisdom with computer-based information systems. This requires multiple iterations and gradual optimization. The iterative optimization method is to combine qualitative analysis with quantitative verification, expert groups, supporting data, various information and computer technology, and subject theory with empirical knowledge in the research and design of wars based on the integration of science and technology. Combine the current technical cognition of the war situation with the prediction of the direction of the war with an eye on future development, track and study the operational concept, operational concept, operational style, operational actions of the operational opponent and their impact on us, timely clarify the enemy's advantages and weaknesses, strengths and weaknesses, and continuously innovate the tactics and means to defeat the enemy.