



China: Seizing Cyber and Electronic Dominance on the Battlefield

OE Watch Commentary: The Chinese recognize that electronic and cyber warfare complement each other and they are interested in the role that the electromagnetic spectrum plays for both. This has prompted three Chinese military strategists to carefully examine ways to achieve cyber and electronic dominance on the battlefield. In the following excerpted article, published in *Jiefangjun Bao*, the authors explain that in order to achieve cyber and electronic dominance on the battlefield, it is important to focus on influencing or breaking the enemy psychology and perception system. This can be done by employing electronic deception to “conceal the real by displaying the fake,” to “employ feint cooperation to give out a false impression to lure the enemy,” and to “appear as the enemy least expects in order to secure victory by surprise moves.”

The authors envision future informatized warfare as being complex with multiple enemy targets. They write that it is impossible for cyber and electronic forces to cover all the bases and attack on all fronts. Therefore, cyber and electronic energy should be selectively harnessed and controlled to dominate or attack prioritized targets. One of the measures to accomplish this, they write, is through “flexible electromagnetic maneuver.” This is where every platform not only collects data on the enemy’s signals and informs the network, but they also dial up and down their own emissions to deceive the adversary. Another measure is “vast area suppression,” in which enemy units are suppressed to prevent them from taking action. The authors then explain that a combination of cyber and electronic energy can strike enemy core points, destroy enemy nodes, break enemy system of systems, and effectively support the main mission of the combined arms troops.



Future Combat Systems network.

Source: : https://commons.wikimedia.org/wiki/File:Future_Combat_Systems_network.jpg
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The authors make a surprisingly simplistic argument that the main way to seize cyber and electronic dominance on the battlefield is by resorting to electronic warfare and cyber warfare themselves. Electronic warfare, they say, should be used to “pool energy for external harassment.” Patterns of “electromagnetic separation, electromagnetic obstruction, and electromagnetic destructions” might be used to completely or partially incapacitate the enemy’s command system. For cyber warfare, which pools information for “internal attack,” the authors recommend implanting viruses, logic bombs, and malicious software into the enemy’s internal battlefield information network. They can also be combined with firepower to enhance target-specific strikes and to paralyze the enemy’s mission.

The authors conclude that it is impossible to attack all areas. Therefore, the optimal targets to strike must be carefully chosen to subdue the enemy. In selecting targets, the priority must be to attack the enemy’s core combat system of systems. Forceful cyber and electronic attacks must be launched straight into the enemy’s command center to destroy it. Finally, they explain that everything should be done to weaken or destroy the enemy’s combat system of systems from the top down. Important targets, they note, include information nodes, communication hubs, and key networks. **End OE Watch Commentary (Hurst)**

“In future operations, there should be more focus on electronic and cyber space...”



Continued: China: Seizing Cyber and Electronic Dominance on the Battlefield

Source: Liu Guojun et al, “如何有效夺取战场网电制权 (How to Effectively Seize Cyber and Electronic Dominance on the Battlefield),” Jiefangjun Bao, 4 August 2020, http://www.81.cn/jfjbmap/content/2020-08/04/content_267666.htm

How to Effectively Seize Cyber and Electronic Dominance on the Battlefield

In recent years, with the rapid advancement of information technology, the roles of the electromagnetic field and cyberspace have become more prominent. Operations aiming to seize cyber and electronic dominance on the battlefield by means of electronic warfare and cyber warfare have especially become the focus of the battle between two opposing forces. In future operations, there should be more focus on electronic and cyber space, explore the winning mechanisms and approaches to seize cyber and electronic dominance on the battlefield, scientifically harness and give play to the advantages of the cyber and electronic forces on the battlefield, ensure the establishment of information advantages in the main direction, important areas, and key moments on the battlefield, and create favorable conditions to firmly grasp the initiative on the battlefield.

... To seize cyber and electronic dominance on the battlefield is to focus on influencing or breaking the enemy psychological and perception system. Taking into consideration the features of the cyber and electronic space -- ease of concealment and strong penetrability and following the operation rule of “strength stemming from the mind,” efforts should be made to fully tap into the arena of employing cyber and electronic strategies and try all means to lull the enemy’s alertness and crush the enemy’s mind, thus resulting in misinformation, misjudgment, and improper decision-making for the enemy.

Employ electronic deception to conceal the real by displaying the fake...

Employ feint cooperation to give out a false impression to lure the enemy...

Appear as the enemy least expects it to secure victory by surprise moves...

In future informatized warfare, there will be multiple enemy targets, together with the enemy consummate system of systems during operations. It is impossible and unnecessary for the cyber and electronic forces to cover all bases and attack on all fronts. Efforts should be made to give full play to factors such as flexible electromagnetic maneuver, vast area of suppression, and controllable cyber and electronic energy, and dynamically combine the cyber and electronic energy on the battlefield based on the actual needs of the battlefield in different phases and time segments, so as to strike the enemy core points, destroy the enemy nodes, break the enemy system of systems, and effectively support the main mission of the combined arms troops.

The main ways to seize cyber and electronic dominance on the battlefield are electronic warfare and cyber warfare. In future operations, it is important to technically and tactically integrate the employment of electronic warfare and cyber warfare to allow both means of attack to give play to their respective advantages in coordinated operations, so as to achieve the best results.

...The organic integration of cyber and electronic operations and firepower strikes not only can play up the combat mechanism of soft-hard integration and the synergy of effectiveness to achieve the organic combination of “decapitating and blinding” and “physically destroying and damaging,” but also can achieve the concentrated release of combat effectiveness, so as to establish the dominant advantage in system-of-systems confrontations and contribute to the acceleration of combat development.

Focus on crucial points to subdue the enemy and select optimal targets to strike. It is a must to give the priority to the attack on the core part of the enemy combat system of systems, launch forceful cyber and electronic attack straight on the enemy command center to destroy it, and try all means to weaken or disintegrate the enemy combat system of systems from top down; to give the priority to the attack on the enemy important battlefield pillars, such as information nodes, communication hubs, and key networks, and achieve the chain effect of “one slight move affects the whole situation”; and to firmly pinpoint the deficiencies of the enemy combat system of systems, try to tackle the weaknesses first, and create conditions for the launch of a preemptive cyber and electronic attack on the enemy and the favorable combat development.