



## **Annual Assessment of Trends of Defense Technology 2019**

### **《2019 國防科技趨勢評估報告》**

#### **Executive Summary**

*(Please refer to the full report in the original Chinese language)*

The US-Sino trade war is resetting the global technology supply chain. It has not only sent companies scrambling to diversify IT manufacturing outside of the PRC and consider the United States, written off years ago as a manufacturing base – for example, to make expensive semiconductors. But it is also pushing partners and rivals to pick a side. In other words, my way or Huawei.

INDSR's annual assessment on the trends in defense technology unequivocally sees that at the core of the US-Sino trade dispute is a technology Cold War. The trade war suppresses military investment, the focus and pressure on technology issues weaken armaments upgrade, and all the while, achieves the strategic effect of restricting the PRC's national strength.

However, the PRC's technological prowess in military gear and tactics is improving. As one of the world's manufacturing powers, the PRC acquires key technologies related to national defense and economic competitiveness through various methods such as mergers and acquisitions, theft, hacking, and forced technology transfer.

Against all this backdrop, the protection of sensitive technology and the security of the defense industry are the buzzwords in defense technology trends of 2019. Issues surrounding those themes, including those that touch on Huawei, Taiwan Semiconductor Manufacturing Co (TSMC), foreign investment review processes, the PLA's missile development and Taiwan's indigenous defense programs, to name a few, are discussed in the report.

The PRC continues to infiltrate the technology industry in the US and the West, which is increasingly on alert and beefing up counter measures to prevent sensitive technology outflows. A gradual emergence of what could become “a crisis of trust” by the United States and potential allies toward the Taiwanese IT industry should be closely watched and be taken as an important signal for Taiwan's management in sensitive technology.

Taiwan, itself, will also face more infiltration and talent poaching in its technology sector by the PRC. This means how to protect and defend information security and prevent the theft of business secrets and intellectual property rights will be a top priority for Taipei.



Another critical area being followed is hybrid warfare and gray zone tactics. Specifically, information warfare and the use of the technologies behind it. The PRC's state media rely on artificial intelligence algorithms to strengthen the dominance of officially-sanctioned public opinion. Strategies employ echo chambers and social media are used as tools to break into select population groups and, ultimately with the help of big data, begin to more precisely target key audience.

It is foreseeable that Beijing will use machine learning and algorithms accumulated through online content censorship to design algorithms that can produce false public opinion and information for rapid distribution and influence. This may be the pre-drill for information warfare, psychological warfare and other influence operations carried out to maintain the PRC's domestic stability.

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